

FARMER'S ADVOCATE

AND HOME JOURNAL

THE ONLY WEEKLY AGRICULTURAL PAPER IN WESTERN CANADA

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

MAY 6, 1908

WINNIPEG, MANITOBA

VOL. XLIII, NO. 815

METALLIC CEILINGS

Are Artistic,
DURABLE, SANITARY,
and FIREPROOF
Easily applied, Cannot
Crack nor Fall Off

Send us a sketch showing shape
and exact measurements of your
ceilings or walls, and we will
submit designs, estimates and
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Metallic Roofing Co.,
LIMITED
Manufacturers
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(46)

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Corrugated Iron

Makes the BEST ROOFING
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Barns, etc., either painted or
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It is fire-proof, lightning-proof,
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Manufacturers of all classes of
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HAY, OATS and CHOP from country points.

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229 Pacific Ave., Winnipeg

RAW FURS ONLY

Write us for Price List. Demands of all kinds strong.
Send along your Furs and get highest market prices
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Liberal Grade by most competent Sorters.
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WONDERFUL KOOTENAY



ORCHARD SCENE IN THE KOOTENAY

DO YOU WANT GOOD FRUIT LAND?

Then buy from our selection on Kootenay Lake, opposite
KASLO

Good Fishing and Boating
No Irrigation Necessary
No Pests and no Blight
An Ideal Climate—no extremes
Soil unsurpassed
Good Transportation Facilities

If you are interested in Fruit Culture in the KOOTENAY, send
for our illustrated booklet and map, which gives new
and up-to-date methods of fruit raising, and also gives
our exceptionally low prices and terms.

Don't Put Off Till To-morrow! Write To-day! It will Pay You!

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"OSHAWA" GALVANIZED STEEL SHINGLES

Rain can't get through it in 25 years
(guaranteed in writing for that long—good
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Write us and we'll show you why it
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The PEDLAR People (Est'd
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Oshawa Montreal Ottawa Toronto London Winnipeg

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Five and Ten Acre Blocks
Three miles from New Westminster
Cleared land \$200.00 per acre
Uncleared ,, \$125.00 ,,
Quarter Cash, balance very easy
Write at once

DOMINION TRUST CO. Ltd.
New Westminster, B. C.

Watches that Keep time

In buying a watch here you run no risk,
for our watches are fully guaranteed by
the makers; besides we stand back of
them with our guarantee to refund money
if they do not prove satisfactory.

At \$10, postpaid, this is the best watch
ever offered in the West—a 15-jewel
"Reesor Special" movement, an accurate
and reliable timekeeper, in a solid nickel,
solid back, dustproof case; the same
movement in a 20-year gold-filled case
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"The Jeweler"

Issuer of Marriage Licenses
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Highest Prices Prompt Returns

These are some of the things that have helped to make our firm the foremost in the commission business to-day. It pays to
ship your grain to a strictly commission firm. Write for shipping instructions and further particulars. Send samples.

THOMPSON, SONS & COMPANY, Grain Commission Merchants, Box 77B, WINNIPEG

ALL ADVERTISING CONTRACTS ARE MADE SUBJECT
TO A GUARANTEE OF 20,500 SWORN CIRCULATION

Farmer's Advocate and Home Journal

The Only Weekly Farm Journal in Western Canada

PUBLISHED EVERY WEDNESDAY BY THE
FARMER'S ADVOCATE OF WINNIPEG, LIMITED
GENERAL OFFICES:

14 and 16 Princess Street, Winnipeg, Manitoba
Branches at London, Ont., and Calgary, Alta.

BRITISH AGENCY—W. W. CHAPMAN, Mowbray House, Norfolk Street, W. C., London, England

Terms of Subscription.—In Canada, England, Ireland and Scotland, \$1.50 per year in advance; \$2.00 when not paid in advance. In the United States, \$2.50 per year in advance. All other countries, \$3.00.

Advertising Rates.—Single insertion, 15 cents per line, agate. Contract rates furnished on application.

Remittances should be made direct to this office, either by Express or P. O. Money Order or Registered letter, which will be at our risk. When made otherwise we will not be responsible.

The Date on Your Label shows to what time your subscription is paid.

Change of Address.—Subscribers when ordering a change of address should give the old as well as the new P. O. address.

We Invite Farmers to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned if accompanied by postage.

Anonymous communications will receive no attention.

Letters intended for publication should be written on one side of the paper only.

The Farmer's Advocate is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrears must be made as required by law.

Address all communications to

FARMER'S ADVOCATE OF WINNIPEG, Limited,
Winnipeg, Manitoba.

Government Seed Grain for Sale

After filling all requirements for government seed oats, there will be a surplus remaining, which I am authorized to place on the market at 85 cents per bushel, sacked, delivered at country stations.

If Winnipeg delivery is desired, the buyer must make arrangements to call for the oats at the Anchor elevator.

These have all been imported recently, either from Prince Edward Island, or Great Britain. The British oats comprise: Abundance, Banner, Waverley and Number One English varieties, and weigh from 41 to 45 pounds per bushel. The Prince Edward Island oats are an excellent milling variety, weight 39 to 40 pounds per bushel.

All of the above oats are white varieties and are the finest procurable, and upon arrival here have been very carefully re-cleaned.

In all cases cash must accompany orders, Currency, marked cheques and postal money orders received. Cheques must be made payable at par at Winnipeg to the undersigned.

Orders will be filled as received, until the surplus is disposed of. Named varieties ordered by customers will be supplied as far as possible, but the undersigned reserves the right of substituting any of the other above varieties if unable to supply the one desired.

C. C. CASTLE, Purchasing Agent,
Box 1327, Winnipeg, Man.

In no case should the imported British Oats be sown at less than three bushels to the acre.

Preliminary Notice of Auction Sale of Thoroughbred Horses and Cattle and Implements

As Official Liquidator of The Manitoba Ranching and Grain Growing Company of Carberry, I will offer for Sale by Public Auction at the old Boyd Ranch, Nine Miles South of Carberry, the **LIVE STOCK** and **IMPLEMENTS** belonging to the above Company, on the Tenth Day of June, 1908, commencing at 10.30 o'clock a.m., and continuing until the whole lot is disposed of.

In doing this, I am within the mark when I say that purchasers will have an opportunity to buy at their own prices from the largest, most varied and best bred herd of Horses and Cattle that has ever been offered by Public Auction by any person in this part of Canada.

It has taken nearly twenty years to bring this herd together, and buyers may pick from and benefit by this experience. Included among which they will find:

Imported and Province bred Clydesdale Horses,
Imported and Province bred Thoroughbred Horses,
Standard bred and Hackney half bred Horses,
Imported and Province bred Galloway Cattle,
Imported and Province bred Shorthorn Cattle.

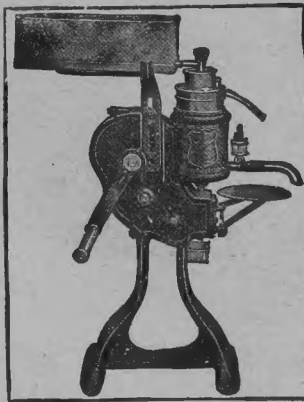
In all about Three Hundred head of which over One Hundred are pure bred and registered in their respective Registers.

Among the Implements will be found two complete Threshing outfits, both nearly new. One is a 36x60 Separator and 22 Horse Power Traction Engine; the other a 28 inch Separator and portable Engine; each having Self Feeders, High baggers and Wind Stackers; Straw Cutter with blower; Manure spreader; Seeders, Harrows, Plows, Packers, Binders, Mowers, Rakes, Wagons and many other articles needed on a 3000 acre Farm, too numerous to mention here.

Catalogues, terms of Sale and any other information required can be obtained from Messrs. T. C. Norris, Auctioneer, Griswold; R. H. Lindsay, Auctioneer, Carberry; N. Boyd, Carberry; or the undersigned:

Winnipeg, April 23, 1908.

CHARLES H. NEWTON,
Official Liquidator



S U S U
The BEST Improved!
1908
IMPROVED
U.S. CREAM
Separator
S U S U

It gives us much pleasure to receive daily the good words dairymen are saying, the country over, about the 1908 Improved U.S. Cream Separator. Why not—YOU—join this army of satisfied users.

Do get interested and send for general information catalogue No. 110 at once. A postal brings it to you. Address all letters to

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

Canadian Shipments made from our Warehouses at Sherbrooke, Hamilton, Calgary and Winnipeg, but correspondence should be addressed to our Head Office, Bellows Falls, Vt.

495

An Atlas
A Knife
A Razor
Two Watches

You may have one or all of them.
Just do a little talking, that's all.

If you are a reader of the FARMER'S ADVOCATE you know the real value it is to the farmer, the stock breeder, or the homesteader.

Successful Agriculture makes successful people. It is the success of the man who works the land that makes the country prosperous and the individual happy.

The Farmer's Advocate and Home Journal is filling an indispensable want, disseminating among the people of Western Canada the real and reliable information that enables the farmer to extract the wealth from the soil. If you are a reader you know it. If you are a subscriber you appreciate our efforts to help you.

HELP YOUR NEIGHBOR

If he is not a subscriber induce him to become one. The ADVOCATE will be as valuable to him as to you, and the more successful men there are in your neighborhood, the better it will be for the locality.

See List of Premiums above

The ATLAS: 16 full-page maps, names of cities of the world and their population, name and population of every town in Canada of over 1,000. Send us **One** new subscriber and we will mail it to you.

The RAZOR: A Carbo-Magnetic, of best steel; costs in the ordinary way \$2.50. Send us **Three** new subscribers and shave with this razor.

The KNIFE: A genuine two-bladed Joseph Rogers. Can't be purchased retail for less than \$1.00. Send us **One** new subscriber in addition to your own and the knife is yours.

The WATCHES: For **Three** new subscribers we will send you a nickel case, seven jewel, stem wind, Gentleman's watch. For **Four** new subscribers you can have a Lady's watch, handsomely engraved, illuminated dial—a little beauty.

To secure a Premium, subscriptions must be new ones, not renewals.

SUBSCRIPTION PRICE **\$1.50** Per Annum.

GET BUSY, Get Rich and Get a Premium.

Address all Letters to

The Farmer's Advocate of Winnipeg, Ltd.

IT'S THE CRIMP

That's the part that counts.

And the crimp that makes washing easier, and practically does away with the danger to the finer linens, is the crimp that's RIGHT.

You'll always find the RIGHT crimp in

Eddy's Washboards

Your Grocer has 'em—and Eddy's Matches.

THE SOUTHERN OKANAGAN VALLEY



is the GARDEN of CANADA for Fruit and

Peachcliff

is the best location in it. The CLIFF FACES SOUTH, reflecting the heat on the fruit and sheltering it from the north. The tenderest varieties of fruit grow there.

Peachcliff Fruit Farms, Okanagan Falls, B.C.

Fortunes are quickly made in the Okanagan.

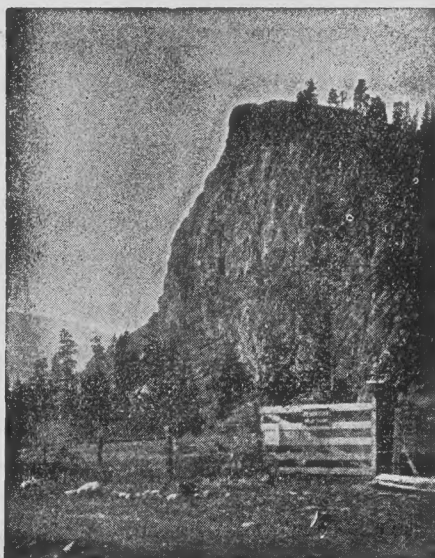
For Photographs of the farms and full information write

A. J. SMYTH

976, 7th Ave. West,

FAIRVIEW

VANCOUVER, B. C.



"The Cliff" 13

Ruberoid Roofing

Trade Mark Registered

Has Proved Its Wear

For 16 years, RUBEROID Roofing has withstood extremes of heat and cold on the roofs.

For 16 years, RUBEROID has been the standard and is today recognized as the only perfect roofing material. It is rain and snow proof—fire-resisting and practically indestructible.

Write for samples and prices.

Manufactured in Canada solely by
The Standard Paint Co. of Canada Limited, - 286 St. James St., - Montreal.
Factories at Lachine Canal, Highlands, P.Q.

14

Stephens' PAINT



Think how much easier it would be to mop off the kitchen floor if it were painted with *Stephens* Floor Paint than to scrub its unpainted surface. It would look more attractive, too—and be more healthful.

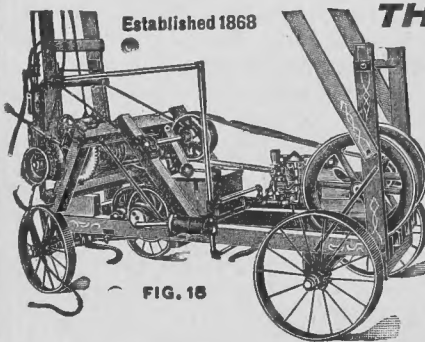
And *Stephens* Floor Paint costs so little.

Besides, it hardens the floor. Will not let it become dirty, gray and soft, as an unpainted floor will under the action of soap or lye and water.

Write for our interesting **Free Booklet No. 12a** and color cards.

Sold by progressive hardware dealers.

G. F. *Stephens* & Co., Limited, Winnipeg, Canada



Established 1868

THE AMERICAN WELL WORKS,

Aurora, Illinois, U. S. A.
Chicago, Ill. Dallas, Tex.

MANUFACTURE FULL LINE
**Jetting, Rotary, Coring, Rock
Drilling and Prospecting
Machinery.**

Any Diameter or Depth. Strong and Speedy.

CATALOG MAILED ON REQUEST.



PAGE WHITE FENCES

Get the Best. Styles for Lawns, Farms and Ranches. Made of high carbon wire, galvanized and then painted white. Tougher and stronger wire than goes into any other fence. Get 1908 prices and illustrated booklet.

THE PAGE WIRE FENCE CO., LIMITED
Largest fence and gate manufacturers in Canada.

WALKERVILLE TORONTO MONTREAL ST. JOHN WINNIPEG

218

Kootenay Lake Improved Fruit Land

Contains 20 acres, has a frontage on Kootenay Lake and is situated on the south shore about 2 miles from Proctor. Proctor is the terminal point for the Canadian Pacific Railway from Nelson. It comprises a Railway depot, Hotel, Store, Post Office, C. P. R. Docks, and is in the midst of a good settlement. Proctor is situated at the mouth of the Kootenay Lake outlet, is quite a popular summer resort and is within one-half mile of the finest Salmon and Rainbow trout fishing grounds to be found in America.

The 20 acres offered for sale contain 15 acres of the very choicest fruit land, with the following improvements: Neat frame dwelling of 4 rooms, size, 16 x 22; Lean-to Kitchen, 15 x 16; Good root-house and chicken house.

2½ acres thoroughly cleared and planted as follows:

10 Flemish Beauty pears,	8 Red Astrachans, apple,
5 Black Republican cherries	20 Duchess, apple,
5 Peach plums,	10 Spies apple,
5 Italian Plums,	10 Snow apple,
5 Yellow Egg Plums,	5 Mann apple,
9 Wealthy Apples,	50 Bushes black and red raspberries,
10 Yellow Transparent, apples,	½ acre strawberries,

These trees are four years old and are bearing fruit, and are in a fine healthy condition. Registered Water-right.
The farm gets the benefit of daily trains and Steam-boat service, and all its products in season can be shipped daily. Landing dock on adjoining property.
The whole farm presents a neat compact and stylish appearance and with its slight elevation above the water it affords its owner a beautiful and commanding view of Kootenay lake and all its traffic.

THE PRICE COMPLETE IS \$3000.00. Terms arranged.

TOYE & Co., Fruit Lands, Box 51, Nelson, B. C.

When writing Advertisers mention the Farmer's Advocate

THE BEST CREAM SEPARATOR

AND THE DIFFERENCE IN CREAM SEPARATOR ADVERTISING

All separator advertisements seem very much alike to the average reader, who is at a loss what to make of them and how best to attempt guessing which may be the best machine, where all claim to be the best and all appear to be about everything that could be asked for.

THE EXPLANATION AND THE SOLUTION ARE TO BE FOUND IN THE DIFFERENCE BETWEEN DE LAVAL AND OTHER CREAM SEPARATOR ADVERTISING.

The De Laval Company has always stuck to the old fashioned plan of having its advertising written in its own offices, by the men who make and sell its machines and have been doing so for years, and who know no more about advertising than to describe as simply and best they can the merit and efficiency of the machines they offer to the public.

Practically every other separator concern of any consequence has its advertising composed and in great part "invented" by professional agencies and hired advertising writers, located in the big cities, who could not themselves tell the difference in looks between a cream separator and a corn sheller, and who take up the advertising of everything that comes to them, from needles to automobiles, for anybody able to pay for their services, just as does the lawyer for any client who comes along, whether the case is good or bad and the client right or wrong.

It is up to these professional composers of prose, poetry, fiction and romance in an advertising way, and the professional artists who work with them in illustrating their productions and putting them into showy and attractive shape, with their wide knowledge of what "takes" with the public generally, to claim the utmost their prolific brains can evolve for the separators they are retained to advertise.

What these professionalists all do know, or are at any rate first told, of cream separators is that the DE LAVAL machines and the advertising descriptive of the DE LAVAL machines are the ESTABLISHED STANDARDS by which their advertising productions must be measured, and MUST ENLARGE upon in some way, or else they will stand little show of drawing any business for their patrons.

As a result, the biggest advertising claims are frequently made for the poorest and trashiest separators. The biggest advertising done and the biggest claims made are by jobbing and "mail order" concerns who don't even make their own separators at all, but simply buy them where they can buy them cheapest, and who are almost invariably selling a machine which has already proved a business failure once or twice before under a different name and a different coat of paint.

When the DE LAVAL claim was justly made of saving \$10.- per cow every year for its users one of the poorest and cheapest separators ever produced put out a claim of saving \$15.- in the same way, and since then another has come along and made it \$20.-. The next may as likely make it \$25.-

BUT IT IS THE MACHINE AND NOT THE ADVERTISING THAT SKIMS MILK POORLY OR PERFECTLY AND LASTS TWO YEARS OR TWENTY YEARS AFTER THE BUYER HAS PUT HIS MONEY INTO IT, AND THAT IS THE DIFFERENCE BETWEEN THE DE LAVAL AND OTHER CREAM SEPARATORS, SMALL AS THE DIFFERENCE MAY SEEM IN THE ADVERTISING CLAIMS MADE.

The 1908 DE LAVAL catalogue—to be had for the asking—is an educational text book of separator facts, of interest to all who read and think for themselves.

THE DE LAVAL SEPARATOR CO.

Montreal

WINNIPEG

Vancouver

Educative Literature

There is no department of finance of such importance to the average man as Life Insurance, and none, generally speaking, of which he knows less.

To those wishing to investigate the possibilities of Life Insurance, the extraordinarily liberal provisions of modern Policies, the CERTAINTY of the protection afforded, the comparative advantages of various Plans, the value of Insurance as an investment, and so forth, the Great-West Life Assurance Company will be pleased to send fully explanatory pamphlets in which the various phases of Life Insurance are clearly referred to. The Company will, at the same time, be pleased to give personal advice and information, and these explanations will be none the less freely given though the applicant has no immediate intention of insuring.

The Great-West Policies are widely known for their liberality and value. Rates are low, and profit returns to Policyholders remarkably high.

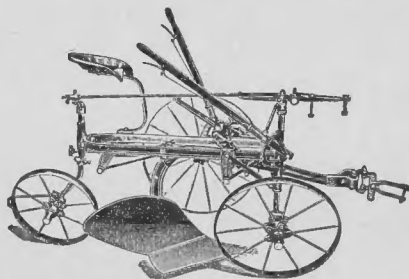
THE GREAT-WEST LIFE ASSURANCE CO.

Head Office

WINNIPEG

Ask for a Great-West Memo Book for 1908—Free on request.

New Eclipse Plows



The Perfection of all Riding Plows

For the man with hard, stiff land, the ECLIPSE is the Plow, the positive lock device keeps it in—always.

In stony land you will have no broken shares; the Plow raises itself and enters the

ground again after passing a stone. Do not these things appeal to you? Learn more about New Eclipse Plows by getting our catalogue.

MADE BY

FULLER & JOHNSON MFG. CO., MADISON, WIS.

THE STEWART-NELSON CO. LTD.

General Agents, Winnipeg

HAIL INSURANCE

A subject in which every owner of growing crops is interested.

If the grain-growers of Western Canada should get together and relate their experience with hailstorms and hail insurance last year the following are some of the facts that would be brought out very prominently:

That districts previously considered safe suffered severe loss.

That much distress was caused by taking chances and not insuring.

That great hardship resulted from certain so-called Hail Insurance failing to stand the supreme test of a bad season.

That THE CENTRAL CANADA INSURANCE COMPANY maintained its unbroken record for payment of losses promptly and in full.

That Insurance which fails to indemnify when serious loss occurs is a delusion and dear at any price.

Such facts demonstrate the wisdom of insuring against loss from an element that cannot be controlled, and prove the superiority of the protection afforded by a Policy with

The Central Canada Insurance Company

Ask our local agent or write this office for testimonials from those whom we indemnified for loss last year, or any other information desired.

Head Office
Brandon, Man.

JOSEPH CORNELL
Manager.

Farmer's Advocate

and Home Journal

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

May 6, 1908

WINNIPEG, MANITOBA.

Vol. XLIII. No. 815

EDITORIAL

Co-Operation in the Meat Industry.

In their search for a remedy to combat the undesirable affect on the meat industry of having the trade confined exclusively to one or two firms, Alberta farmers are giving some consideration to a scheme which proposes the establishment of co-operative packing plants owned and controlled by farmers and supervised by the government. Also, we believe, some scheme for marketing live stock.

One particular plan that is being quite extensively advocated, aims at the adoption of a system modelled somewhat on Danish co-operative lines, a system that could involve both governmental and individual contribution to the original investment, subsequently to be managed by the individual stock holder and supervised by government experts when required.

Alberta has already a number of organizations modelled on Danish lines. She has government creameries, and government stations for fattening, killing and marketing poultry. The creameries have placed dairying as an industry, in a position better than that in which it exists in any other western province; the fattening stations have given an impetus to the poultry business that promises to develop it into one of the most profitable agricultural industries of the province. Why then, since government assistance in supervision and management has done so much for these smaller industries, has been so uniformly successful, has operated so markedly to the advantage of the producer, and has demonstrated so clearly that the principle is neither a theory nor a myth; why, in one of our larger industries, should not a system based on similar lines be proportionately successful? And further, if in the fattening and marketing of poultry and in the making and selling of butter, a government can manage affairs to the profit of its farmer customers, especially since there is no incentive for the customers using the facilities provided, other than the profit that may accrue to them from so doing; why, would not a manufacturing and marketing organization in the meat trade, in which farmers were interested as stock-holders, thus being more vitally concerned in its welfare than they would be if merely patron; why, should not such an institution be even more markedly successful and advantageous?

This is a favorite argument of those who are advocating government and co-operative management of the meat business of Alberta. It is an argument too, which on the face of things seems sound. Alberta has built up agricultural trade and manufacturing businesses on Danish models, which are a credit to the government that instituted them and a blessing to the interests which they serve. Denmark has demonstrated what co-operation can do in agriculture, and Alberta has shown what government management can do in the manufacturing and marketing of certain farm products; but from the results of neither, is there reason for assuming that a combination of the two would be successful.

In fact we rather suspect it would not. Farmers in Alberta can co-operate for the purpose of managing the marketing of their live stock and meat products, and given a fair chance there is some prospect, that, at the present time their venture would be successful. Co-operation among those engaged in any industry can be successfully carried on only when there is a economic necessity for concurrent effort. Co-operation among farmers in Denmark, co-operative societies in England, and the trusts, combines and corporations in America, were induced, primarily, by economic causes. Co-operation among the farmers of this country will come when conditions in the agricultural industry or any department of it, are such, that there is a necessity for farmers, as producers or consumers, banding together for the sale of their products or the purchase of their supplies. The indications are that present conditions in the live stock business are going to induce such a movement here. No one, who is conversant with the manner in which live stock and meat products are marketed, but knows, or has good reason to suspect, that too small a return is made to the producer and too large a proportion of the total returns of the industry passes to the middleman, the manufacturer or somebody else who added little or nothing to the value of the article he extorted toll from. Co-operation, then, in these circumstances, in the live stock industry, stands a good chance of attaining to more success than co-operative movements among farmers in this country, are likely to attain or did attain in the past.

But there is a difference between the co-operative management of an industry by those engaged in it, and the joint administration of that industry by the government and the producer. Party politics and party patronage seem inseparable to Canadian governmental institutions, federal or provincial. It would be difficult to keep either politics or patronage from any undertaking in which a government was concerned; and politics and patronage would not be long getting in their destructive work in such a movement as this. We have seen farmers' organizations ruined, before by these same things, and so long as human nature is constructed as it is, we have no reason to believe that we will not see it again, especially, if the conditions likely to induce disaster, are incorporated at the start.

A co-operative organization requires more than the enthusiasm if its members to carry it success. It must bind in some manner those who enter into it to support its undertakings and under penalty compel them to be loyal to the organization. It involves, some self-sacrifice and self-denial on the part of the individuals or communities entering the movement. They must bind themselves to support and patronize their organization through good report and ill. The spirit of individual independence must, to some extent, be sacrificed for the advancement of the communal interest. The community must agree to abide loyally by the decisions of the majority. Even when all these essential principles are observed, there is much chance that the movement may come to naught, especially, in this country where the incentive for union is less strong than in the older lands.

An Extensive Demonstration.

A worthy example is being set by the Canadian Pacific Railway. A waiting-room, storage-room for perishable express or freight, and an office and apartments for the agent is sufficient equipment for the company's business at scores of points, but the mere discharge of commercial necessities is not the ultimate aim of the company. Large plans for a scheme of floral decoration across the continent from St. Johns to Vancouver, and for the growth of extensive plots of forest trees for shelter, and a future supply of posts and ties, are on the way to completion. Station section men and other employees are enlisted in the work of floral decoration and a package of twenty-nine varieties of flower seeds, with instructions on cultivation and seeding, are supplied each amateur gardener. The public has watched the result of this movement during the last few seasons, and has appreciated the efforts of the officials of the company, to improve the appearance of their surroundings. In many cases these station gardens have served the purpose of local experimental and demonstration plots. Varieties of flowers and shrubs that otherwise would not be known in different districts, have become part of the life of the people and share in the hardships of pioneering. At first these railway gardens were to be found only at the larger centres, or in the more favored towns, but now the station agent at every stopping point is being enlisted in the work of flower culture.

The forestry operations of the company have not advanced so far as the flower growing. But breaking has been done along a great deal of the main line right of way, and on several farms which the company have set apart for nursery purposes. Each year snow fences have to be erected to protect long stretches of track, and one of the objects of the forestry department is to grow natural windbreaks that will be permanent beautiful and useful for other purposes. Such work is somewhat of an innovation in the policies of railroad corporations, but it is not undertaken any too soon, since the supply of timber in Canada is not proof against exhaustion.

Agriculture in the Schools.

Among the majority of teachers in the rural schools of Manitoba, and we presume in the other provinces, the conviction holds that the teaching of agriculture in the higher grades is something of waste of time. The importance of a knowledge of agriculture is not ignored, but it is claimed that with the equipment available, and the nature of the text books used, any attempt at teaching the science tends to bring it into disrepute. And this is all very true. When teachers attempt to impart a knowledge of a subject with which they are entirely out of sympathy, or upon which they have not acquired very extensive information, the effect upon the scholars is certain to be a development of indifference to, if not actual dislike for, the matter in hand. This adds to the problem of adjusting the teaching in rural schools, to the needs of those who attend, the further handicap of adjusting it under adverse conditions. Instead of directing adverse criticism against agriculture as a subject to be taught in rural schools, an attempt should rather be made to fit

teachers and provide equipment for the better handling of the course of study.

In his address to the stockmen at Brandon, during the winter fair, Principal Black of the Manitoba Agricultural College, pointed out that one of the greatest handicaps to the teaching of agriculture in rural schools, is the unfavorable estimate of the subject, by most of the teachers. The teacher who regards farming as one of the most "uncultured" of professions had better never attempt to teach the subject.

Complaint was made at the recent convention in Winnipeg, that there were no facilities for teaching agriculture in rural schools; and the statement was endorsed by a leading official in the normal school. But on the other hand, we have met teachers who find, in the ordinary operations of the farm which can be observed from any school window, and the natural phenomena always discernable to the observant eye, so many suggestions and topics of agricultural discussion that they have not the time at their disposal to go fully into them. When agriculture is taken up in this manner, it is both interesting and profitable; but our normal schools do not train our teachers to be able to teach the agriculture of every day, but rather prime them upon the lessons in the text books.

Perhaps we may be pardoned if we make the further suggestion that the teaching and study of agriculture might be made more popular if the district inspectors had the subject more in hand and in heart, and would devote more time to the encouraging of school gardens and the developing of local rivalry in the keeping of school plots. This would rid the scholars of the impression that they have to study agriculture because some department of government prescribed it much after the same fashion as vaccination is made compulsory.

HORSE

Roland, Man., held a spring horse show on the the 24th ultimo; see gossip.

* * *

Although the new Canadian record for Percherons has only been open for a few days; 59 stallions and 125 mares have been registered. Parties desiring blanks and information are requested to apply to Accountant, National Live Stock Records, Ottawa.

Are Purebred Mares Safe Breeders.

EDITOR FARMER'S ADVOCATE:

"I intend to buy a good brood mare; but, before doing so, I would like your opinion upon these points. Are pure-bred mares as safe breeders as common form mares? I have been told that only about forty per cent. of the purebred mares are breeders.

Would you advise me to breed a Clydesdale mare to a Shire or Percheron stallion?"

It is a very common fallacy that because mares are pure-bred they do not breed as well as the common kind. The impression has, doubtless, gained ground from the fact that there are purebred mares that are not good breeders, and, as the purebred stock in a district are noticed more than the ordinary stock, any failure to breed is known by every one in the community, while the same failure on the part of a common mare would scarcely be noticed. The failure to breed, however, is in no sense due to pure breeding. Too close breeding will, in time, destroy fecundity; but it is seldom that horses are inbred to such an extent. The most common reason why pure bred stock of any kind fails to breed is because of over-feeding and too much "care," which impairs the natural functions. When a man pays a long price for a mare or cow he usually takes extra care of her and fails to treat her as nature intended she should be treated. This results in high flesh, soft muscles, and a generally impaired vitality. There is just a

probability, too, that with pure-breds that do raise their foals, the special care they receive results in a few generations in mares that are not as robust as common stock; but let it be understood this is not because of their pure breeding, but of pampering. This is one reason why we have advocated the keeping open of the Clydesdale stud book, to admit of the registration of graded up stock. For it may be supposed that a continuous introduction of blood from stock that is not pampered, would tend to increase the stamina and vitality of the breed.

If our correspondent brings a mare of ordinary chest development and with a reasonable amount of snap and vim, he will take no more risk of her breeding if she be pure bred than if she be a grade or scrub; provided of course, that he gives her reasonable treatment.

As for cross breeding, this subject has been fully discussed in recent issues of the FARMER'S ADVOCATE a reference to which will show good reasons for and against it; but when all the evidence is in, we have no hesitancy in advising anyone to keep within one breed, and also, as near as possible, to one type within that breed, especially if he wants to get into a good uniform bunch. The best that can be said for cross breeding is that it often gets an exceptionally good individual the first cross, but if this individual happens to be a filly she will not be very valuable as a brood mare when she grows up.

The Illinois Classification of Horses.

Professor Obrecht of the Illinois Experiment Station, in the bulletin recently issued, "Market Classes of Horses" gives the following requirements as to height and weight of the different classes of horses:

DRAFTERS.		
Subclass.	Height hands.	Weight pounds.
Heavy drafters.....	16.0-17.2	1750-2200
Light drafters.....	15.3-16.2	1600-1750
Loggers.....	16.1-17.2	1700-2000
CHUNKS.		
Export chunks.....	15.0-16.0	1300-1550
Farm chunks.....	16.0-15.3	1200-1400
Southern chunks.....	15.0-15.3	800-1250
WAGON HORSES.		
Expressers.....	15.3-16.2	1350-1500
Delivery wagons.....	15.0-16.0	1100-1400
Artillery horses.....	15.1-16.0	1050-1200
Fire horses.....	15.0-17.2	1200-1700
CARRIAGE HORSES.		
Coach horses.....	15.1-16.1	1100-1250
Cobs.....	14.1-15.1	900-1150
Park horses.....	15.0-15.3	1000-1150
Cab horses.....	15.2-16.1	1050-1200
ROAD HORSES.		
Runabouts.....	14.3-15.2	900-1050
Roadsters.....	15.0-16.0	900-1150
SADDLE HORSES.		
Five-gaited saddlers.....	15.0-16.0	900-1200
Three-gaited saddlers.....	14.3-16.0	900-1200
Hunters.....	15.2-16.1	1000-1250
Cavalry horses.....	15.0-15.3	950-1100
Polo ponies.....	14.0-14.2	850-1000

Training Bronchos to Harness.

EDITOR FARMER'S ADVOCATE:

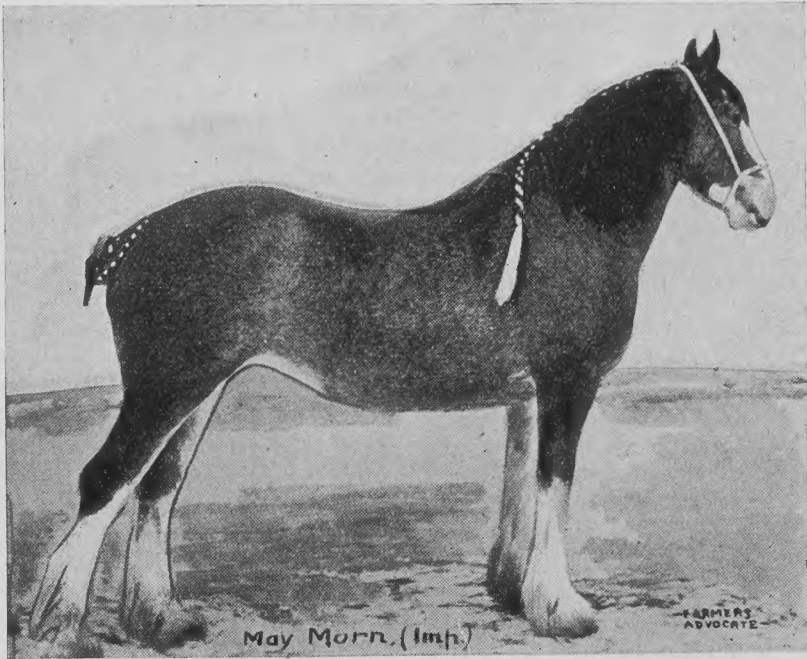
You have kindly requested that I briefly describe the methods which I have employed in training bronchos for general farm work; I will endeavor, to the best of my ability, to do so. Owing to the high prices of the better class of horses new settlers of limited means are often perplexed, not being able to decide whether to invest in oxen or some of the cheap, hardy, unbroken, Western horses. And it is sometimes a question which is stronger, their dislike for the oxen, or their prejudice against bronchos. Wild West shows and broncho busting exhibitions have given the range-bred horse an unenviable and unjust reputation and have caused a great deal of harm to the horse raising industry from a financial standpoint.

It is not the object of this article to advise all new comers of limited means to equip themselves with native horses, either trained or unbroken. The inexperienced man had better, by far, purchase oxen if he cannot afford a docile team of one of the heavier breeds. But the man who is accustomed to horses need have no hesitation in going into a bunch and picking out whatever number he may require for his work. And he will find that with proper and careful handling they will develop into faithful servants and will astonish him at their ability to perform labor that rightly belongs to their larger and heavier brethren. While physical strength is very desirable yet it is not absolutely necessary for horse training, a man wants to match his intelligence against the horses strength, and by kindness, coupled with firmness, overcome the animal's fear and rebellion against restraint. The writer has had considerable experience in training horses, and has enjoyed a fair measure of success, and he is far from being a strong man.

While it is hardly along the line of this article, yet a few words regarding the selection and purchase of a horse might not come amiss. It is a difficult matter to estimate, correctly, the weight of a green "brank" as there are so many things to be taken into consideration. But it is well to make a mental discount of the dealers estimate: he is not very apt to guess too low. The great majority of these small Western horses will only weigh from nine hundred to eleven fifty, when in working trim, of course, many of the better kind will weigh much more, when fed and fitted up. It is also a difficult matter to judge temperament in an unbroken horse. To see them standing in one corner of a corral they do not appear to have much more life than a lot of sheep. But rope anyone of them up and see the change! They are as full of fight as they were sheepish-looking.

In choosing a small horse for heavy work you cannot be too critical of his chest and hocks, see that he is well set up, otherwise you will soon strain him to pieces. Sometimes you may find a horse that suits you in every respect but his feet may be spilt or broken. Unless they are too bad, do not turn him down on that account, for it is surprising what a little care will do to a bad foot, perhaps in a year's time no one could ever tell that there was a split in the hoof. Be on your guard against a horse that is halter-broken, unless all or most of the rest of the bunch are too. Some neighbors of mine bought a nice little horse out of a bunch and he appeared to be halter-broken. He led home like an old horse; but he was a regular demon when they tried to train him. However, they were good horsemen and they conquered him and he turned out to be a useful horse. It was plain to be seen by the horse that he had beaten some one out at sometime.

The first requisite, in training a horse, is a halter. A well fitting rope halter with the double head-band, or what is commonly called a hackamore



MAY MORN (imp.)

Three year old Clydesdale filly, winner of third at Winnipeg 1907, and first at Brandon Spring Show 1908. Sire Marcellus, owned by Jas Burnett, Napinka, Man

is the best to use on a green horse, as he will cease to pull back on that, quicker than on any other. Tie the horse to something solid and let him pull; when he has concluded that it is useless he will quit, and, no sooner. This thing of striking him in the face and making him pull back till he gives up is very bad practice. Never strike a blow unless it is absolutely necessary, then, make every one count, and don't scold and swear at the horse after you do punish him. Kindness pays: the quietest way is generally the best way in the long run; but never let a horse beat you out. Most people think and it is quite reasonable too, that the first step in a broncho's education should be to teach him to lead. But leave that off till the last, for the only correct way to teach a horse to lead up freely, is for the trainer to get on his left side, grasp the bridle with his right hand and keep the animal tapped up from behind with a whip held in the left hand. But this treatment won't do for a broncho, for you must try to gain his confidence. When necessary to load him have someone to follow at a safe distance with a whip to keep him up to place, and if he must be tapped up, let the man behind do it: always let him see that the man at his head is his friend. The trainer and one assistant are all that is needed to handle the horse, but let each thoroughly understand his part before commencing, so as to avoid a lot of talk. And any little device which may be mentioned here or you have heard of elsewhere but don't quite understand, just try it on a trained horse till you master the details of it.

A good training horse is a great advantage, one that is strong and has the right temperament and life. And as it is hard work on a horse, a man should never begrudge a dollar or two for the use of a good animal in training his own. As few stables have properly constructed stalls to harness and handle a green horse in, take him outside and snub him securely to a post or tree; but be sure he cannot corner you, in any of his wild nervous plunging when he feels the leather on him. Do not put on the bridle till the last thing, as one is very apt to hold him by it, and you must avoid hurting his sensitive mouth. A good mouth, one that can stand a steady pressure from the lines, is absolutely essential in a horse, either for driving or for work. A good big straight bit with a little strap under the jaw to keep the bit from slipping through the horse's mouth is all that is required; never on any account, put on a severe bit the first time. In fact a rubber bit is a good thing on a nervous sensitive animal, as by my method of training a green horse is neither guided or controlled very much by the bit, the first few times. In putting on the collar, which is in general use, open it at the top, approach your horse on the left hand side, take firm hold of his halter with your left hand and with your right hand gently slip the collar on to the nainal's neck upside down. He will likely plunge and rear, but you can hold the collar on him so much easier that way; than, when he calms down you can buckle it and carefully turn it into its proper place. Before putting on the harness, fasten a piece of small rope several feet long to the left-hand buckle of the belly-band, for by so doing you can bring it up to its place with more safety to yourself. The reaching after the belly-band and the feel of it is often apt to start a nervous horse bucking; but by this method you can retain your grasp of the halter in your left hand, and with a small hooked stick in your right, you can gently draw the cord towards you. The horse will, generally, resent the straps coming underneath him, but hold it there and talk soothingly to him, and when he quiets down you can buckle it up without any trouble.

Occasionally one finds a horse that will sulk and throw himself flat on the ground when the harness goes on him, and a real obstinate animal is much more trying and difficult to train than an out fighter. If the horse refuses to rise after a few stinging cuts of the whip about the flank, take an old sack, folded several times and hold it across his nostrils; they generally jump up when they begin to strangle. If that fails then severer measures have to be resorted to: never let him beat you out: stay with him till he gets up. Take a small rawhide riding whip (never use a stick) and thrash him across the tip of the snout for all you are able. It is severe punishment, but it is the only method I have seen that would bring a stubborn horse to his feet, and the beauty of it is, it does not work a permanent injury to the horse. He will undoubtedly look pretty tough for some time, but the swelling will go down and he will remember the lesson as long as he lives. It is astonishing how much pain some horses will endure before they yield, and if you are a delicate man you may have to tie the animal up, and go and lie down for an hour or probably may have to postpone any further operation till another day. At any rate, a true horse lover always feels sick at heart at having to resort to such harsh measures.

It rests with the judgment of the trainer, whether to put the crupper under the tail the first time or not. But if you decide to do so, first carefully put the bridle on, then, unfasten your rope from the post and lead your horse out into the open. Run the end of your tie rope through the left ring on the bit, and take a firm hold with your left hand on the rope just so that when you are working near his hips his head will be slightly drawn towards you. Should the horse attempt to jump and kick his hind quarters are thrown away from the trainer every time. This method is a safe and simple one, only be careful not to jerk the animal, and as soon as you are through, take the tie shank out of his bit.

Take every precaution against spoiling your horse's mouth, for "no mouth no horse is my motto." The broncho is now ready to hitch. Have your neck-yoke securely fastened to the tongue, also have end of the double-tree on the side of your training horse fastened back evenly. As he generally has to take the lion's share of the weight it is much easier on him. Always train your horse, attached to some vehicle. Don't try to drive him about without. The reasons for this are plain to any thinking man.

Place your vehicle where you have a good clear start with the point of the tongue near a tree or good stout post. Tie the broncho to the post and bring along your training horse and get them coupled together and the neckyoke on, which is never very difficult. Then, hitch the inside trace of your broncho; afterwards hitch your training horse. Have a thin rope, about fifteen feet long, and after carefully getting down the outside trace, as you stand near his head, fasten the rope near the end of it. By walking out around a respectful distance, you are able to get the trace back and along side your horse. This part of the performance is generally where the fuss comes in, for by this time a nervous horse is looking for trouble, and is going to kick right now if there is any in him. Keep the trace moving easily up and down his side and at the same time talk soothingly to him. If he should kick just hold your trace up in place and let him kick till he sees that he can't do any good by it, and that, that thing at his side is not going to hurt him. Be sure to keep the trace held high enough that he does not kick over it, and do not attempt to fasten it till he cools down. During this time, the assistant should stand at the head of the training horse, to keep him quiet and also see that he does not bite or annoy the green horse in any way. In fact this constitutes the sole duties of the assistant, till the horses are hitched and the trainer in the rig. Fasten a rope or lariat into the jawband of his halter; (don't fasten it to the animal's jaw but to the halter) pass the other end through the tunet ring on the outside and carry it back into the rig, to be held by the driver—it should afterwards be held by the assistant after you are once started. The trainer should now get into the rig and get his line ready. If the horse becomes excited, talk gently to him, and keep the training horse quiet; do not unfasten him till he calms down. Let the assistant carefully unfasten the tie rope and secure it to the hame of the training horse just tight enough that the broncho cannot get out the full width of the spread lines; and then get into the rig just as quickly and as quietly as he can, and take charge of the rope that is on the outside of the horse. Likely by this time you are off, but let them go at first, for otherwise a green broncho can show you more tricks than any contortionist you ever saw. If you have been properly anchored to the training horse and your assistant keeps control of his rope, you will not need to annoy him by much pressure on the bit, in fact the lines are chiefly used in guiding your training horse.

I have never seen the least mishap when this method was followed, nor seen one horse spoiled by these precautions. But right here I would say if you are training in a wagon, be sure to fasten your box down securely. A chain or rope around near the head of the reach and then brought tightly over the box is a very good way. The brutal method of attaching ropes to a horse's front feet and throwing him down on his nose if he attempts to run is as unnecessary as it is cruel. There is some excuse for putting a rope on one front foot and lifting that up, letting him run on three legs should he start to kick, but there is no excuse for the other. Should a horse persist in bolting, take a lariat or if you have none, an ordinary rope with a good ring fastened on the end will do. Make a noose and place it on his neck well up on his throat; fasten it to the top of the bridle so it cannot slip down on his neck but do not hinder the rope from slipping freely through the ring. Carry the end of the rope on your hand along with your lines, and if he attempts to bolt, just curtail his supply of fresh air for awhile; a few applications will stop him. But these vices are never developed in a horse that is properly handled from the first. Follow up this method of hitching till you are sure he is reasonably quiet, for one little fuss with a partly hitched team will undo nearly all the careful training you have done. Do not expect him to learn too quickly; remember everything is new to him: and don't be too eager to load him heavy even if he is willing. See that the collar fits well and that the belly-band is reasonably tight, for no horse can work to advantage with an ill-fitting collar or a great loose belly-band. Teach him the words of command distinctly and separately.

One would think by the way so many drivers couple the words "Whoa!" and "Back!" together, that the English language had no single word to express the desire of the driver when he wished the animal to slacken speed. But it is not the case, as "Steady!" expresses the command and the sound is so distinctly different from the others, that there is no chance of the horse being mistaken. "Whoa!" should mean to stop, and "Back!" mean to throw the weight and strength backward into the harness. It seems to me that it is expecting rather much from the horse to ask him to interpret the will of the driver; for that is what he has to do when he hears the one word of command, or what must seem the one word to him, used for several entirely different things. It is certainly quite a delicate matter to teach a nervous high-strung team to go steady, but it can be done.

The writer has one unusually high-lifted little team that will slow down almost to a crawl when a load is pitching and rocking on a rough road. It took time and patience to teach them but it paid. It is also a difficult matter to teach a horse to stand while getting in or out of the vehicle, but a little patience will work wonders here too.

Don't pick up the whip and start him off full speed as soon as you get in the rig, for it only makes him worse next time. Let him start easy for the first half mile or so, even if you have to make double time after that; he will soon learn that you do not desire him to burst off at full speed on the start off. The popular plan of attaching a rope to the end of the lines and carrying it back behind the buggy when closing a gate, is worth being observed, for it cannot be improved on and the team soon learn to stand. The teaching of tricks to horses cannot be too strongly condemned; let him master the necessary knowledge and that is enough for the average animal. When we were boys it tickled our imagination to read of wonderful horses that would not move unless the rider knew the combination so to speak. It took a certain little pull of the mane or tickle on the ribs or some other equally mysterious performance to get them to display their powers. But nowadays horse-training is a business proposition, and when a man buys a horse he doesn't want to have to carry a code book around with him to discover how many pinches it takes to make him do this, or how he should whistle at him to get him to do something else. In conclusion let me say take good care of these brave little animal even if they do try your patience at times. If they are well fed and well handled they will do a tremendous lot of work and you can raise up a splendid cross of horses by crossing these small mares with a draft sire especially a Clydesdale.

LOCHINVAR.

* * *

"The Broncho," Mac Rochon's champion racing queen will be seen again in harness this year and will be trained to assault her own record of 2.00½, made in 1906. The Broncho is one of the most sensational horses that ever entered an American pacing race. She sprang from total obscurity into the focus of racing attention two year's ago, when she lowered the world's pacing record, first to 2.03, and then reeled off the distance in 2.00½, making a mark no other horse ever came near equalling. Towards the close of the season in 1906, she showed lameness, and again last year when put into training turned out lame. She was retired and bred, being in foal at the present time. If the unsoundness is overcome as her owners hope, there will be some sensational pacing events pulled off.

STOCK

Hogs Appear Scarce.

Indications point to a probable scarcity of hogs during the coming summer and fall. An enquiry has been made throughout the corn states, as to the hog supply; and from every quarter, reports have been received that the numbers are below normal. In Ontario, a natural scarcity, as a result of a short grain crop, heavy marketing last fall, and in many cases the killing of young pigs, is beginning to appear. Added to this, there is a greater opportunity to extend our trade in hog products, since the recent treaty with France, gives us a preference in that market of some twenty percent over American products, and France is in a position to take large supplies of pork.

Some of our western hog raisers have sized up the situation and have been quietly getting bunches of hogs about them in expectation of better prices, and, in fact, a slight rise has already been made. These conditions, of course, will not be of much help to the man who has no hogs, rather he is likely to be one of the consuming class, from whom the producer will get his advantage. Just how much effect a scarcity of hogs and higher prices in Eastern Canada and the States will have upon prices in Western Canada is hard to say. We are accustomed here to seeing our markets sink very suddenly, and show a remarkable sensitiveness when supplies seem to be plentiful, but there is not the same response when supplies are scarce. In fact, this spring, live hogs have been shipped from Western Canada to England, as the prices over there permitted of so long a haul. Truly, our live stock markets are in a bad way when it pays better to ship stuff out on foot, than to dress it and put it on cars in a finished condition.

British Columbia as a Market for Pure-Bred Stock

(Address by Dr. S. F. Tolmie, of Victoria, B. C., before the National Live-stock Convention, Ottawa, in February, 1908.)

It was only a few years ago that one of your prominent politicians declared that British Columbia was nothing but a sea of mountains, not worth building a railway across. Apparently the eyes of the Easterner are being opened; he is beginning to realize that there are rich valleys between these mountains, and that even the mountains are yielding up their shares of wealth to the man enterprising enough to go after it. Many changes have taken place since that famous statement was made. We have now one railway running across the Province from east to west, doing a thriving business. We have two others under construction in the same direction, and a fourth is expected in a very short time. British Columbia is on the eve of an era of prosperity such as she has never experienced before, and our Eastern friends may well turn their eyes westward, not only for a market for pure-bred stock, but for other products of the farm and factory that we may need from time to time.

LIVE-STOCK CONDITIONS AND VALUES IN BRITISH COLUMBIA.

Going into the subject of pure-bred stock, I will very briefly outline general stock conditions in British Columbia. This will place you in a position to better appreciate what I have to say. Stock conditions generally in British Columbia are in a very prosperous condition, in that satisfactory state for the stock-owner where generally high prices prevail a demand exceeds the supply. The demand for heavy horses has been brisk until the temporary stagnation in the lumber market began. Since that time the demand has not been so great. Previous to that time it was necessary to import a number of drafters from Ontario and the Northwest Provinces at prices ranging from \$600 to \$1,000 per team. Light horses of good quality are always in demand, and sell from \$175 up, according to quality, and a number are imported from Oregon and Washington every year.

Dairying is making rapid strides on the coast. In 1897 the output of the creameries was 119,000 pounds, which sold wholesale for 26c. per pound. In 1907 the output was 1,651,304 pounds, at 32 15-16 cents per pound. We still import \$2,000,000 worth of dairy produce annually. Good dairy cows bring from \$50 to \$75 each, and up. I consider the Fraser River Valley one of the richest dairying districts in this country. An important side line to the dairy business is the production of pork. Live hogs sell from 6c. to 8c. per pound. All are consumed on the block or sold to Chinese. We import thousands of dollars' worth of the cured products of the hog every year. No pork packing is done in British Columbia.

Nearly all the beef is produced on the range. No stall-feeding is practised, owing to the high price of feed and the low price of beef. The practice of selling all beef off grass in the fall is one of the causes of the prevailing low prices, from 2½c. to 3½c. on foot. Arrangements could be made with advantage to carry on more winter feeding, as 4½c. and sometimes more is paid in the spring.

The quality of the sheep produced is excellent, but the industry has not been developed as it might be. This is partly due to predatory animals, and partly to the fact that nearly all of the open range tributary to the railway has been taken up by cattlemen, and the laws of the Province do not permit sheep grazing on these lands. Only a few range flocks of 1,000 head are kept. We consume 70,000 Washington sheep, 20,000 or 30,000 frozen Australians and a number from Alberta annually, and occasionally import a few carcasses from Prince Edward Island. Lambs sell from \$4 to \$6 per head; live sheep, 5c. to 6c. per pound frozen carcasses, at 12c. to 13c. per pound.

BREEDS OF STOCK KEPT.

Nearly all the pure breeds of stock are represented in British Columbia. The Clydesdale is easily the favorite among heavy-horse breeds, and a number are brought to the Province from Scotland and Eastern Canada every year. These horses sell from \$1,000 to \$3,000 each for stallions, and mares range from \$300 up, according to quality. Local ranch-bred Clydesdales, mostly from imported stock, raised under range conditions, sell for from \$400 to \$500 for stallions and upwards and less for mares. Clydesdales raised on farms at the Coast bring somewhat larger prices. A few Percherons of good quality are produced in the Province. A number of stallions from the United States have been syndicated of late years at prices ranging from \$2,000 to \$5,000 each. A few Suffolk Punches are bred, and give satisfaction, but are not increasing in popularity very fast. Only a few Shire stallions are to be seen. This breed has not been pushed in the past. The Standard-bred is the most popular light horse, and its representatives are of fair quality. I think the breeders might make the breed more popular, if more attention were given to sizes, conformation, soundness, style and speed at the trotting gait. Stallions and mares sell from \$300 up, according to quality. Hackneys have become popular lately. Some excellent stallions, but few mares, are to be found. Stallions sell from \$1,000 to \$3,500, and

mares sell from \$300 up, according to quality. Thoroughbreds are bred in some parts on a limited scale. With the climate of British Columbia, very similar to that of the Old Country, these animals are produced to perfection, as is shown by their performance at California and Washington tracks. Retired racing stallions and mares can be purchased from \$150 up. A few French Coach stallions have been syndicated in the Province, at from \$2,000 to \$4,000 each. Shetlands are becoming quite numerous, and sell from \$100 to \$250, according to quality. Horses of first-class quality, can be produced in any part of British Columbia. On Vancouver Island they can be grown to perfection. In the Fraser Valley, they attain greater size than elsewhere, while the range-bred horse is famous for its flinty feet, wonderful muscles and great endurance.

The Fraser Valley and other parts of the Coast are particularly well adapted for dairying, and here we find the dairy breeds most numerous. Jerseys are very popular. There is a good demand for cows of this breed in the cities for family use, and in the creamery district. Pure-bred cows sell from \$75 to \$150; calves from \$35 to \$50; yearlings from \$75 to \$125. Ayrshires are fast increasing in popularity, and some very good individuals of this breed are to be found. Yearlings sell from \$60 to \$100 each, while \$350 has been paid for a single cow. Holsteins give great satisfaction. A few excellent herds are kept, and recently some valuable importations have been made from California and New York. About the same prices prevail as I have quoted for the other breeds. I think the Holstein breeders could push this excellent breed more, with great advantage in British Columbia. Guernseys have not made much progress, and are few in number. Red Polls are proving themselves very valuable in many parts. Nearly all the pure-bred beef cattle are produced in the range districts. This line of stock is gradually being dropped by Coast breeders.

For the big ranch range-bred bulls give the best satisfaction, as they are better accustomed to the conditions. Ask a ranchman how he likes an Ontario-bred bull on the range, and he will tell you he is no rustler. He does not take well to the range grass, and when the snow flies he humps up his back and hangs round the buildings looking for feed, or, as a cowboy aptly described it to me in Kamloops, "He humps up his back, his hair stands on end, and he looks about as lonely and homesick as a Hindu in Vancouver."

On account of his superior rustling abilities the Hereford is preferred on the big ranch. On the smaller ranches, where winter feeding is carried on, the farm-bred bull gives better satisfaction, and as the ranges are cut up and settled, this form of cattle raising will come more into vogue. On these smaller ranches, the Shorthorn is preferred to the Hereford, on account of his greater size and earlier-maturing qualities. These two breeds are used almost altogether in the beef-breeding districts. Polled Angus and Galloways are rare. A herd of West Highland cattle has been established during the last year. Range-bred bulls sell from \$60 to \$80 for yearlings, with a somewhat better price for those of extra quality. A car of good Washington-bred Herefords was sold last year at \$100 a head, delivered at the ranch. There are some establishments in the Province breeding these range bulls on a large scale, but they do not quite fill the demand, and I am informed by some prominent cattlemen that there will be a market for a few carloads of good Herefords and Shorthorns around Kamloops and in the Nicola Valley next May.

Some excellent pure-bred flocks of sheep are kept, nearly all breeds being represented. Oxfords and Shropshires are the favorite breeds. Lambs sell a \$15 to \$25; yearlings, \$25 to \$50; ewes, \$20 to \$35.

Berks and Yorks are the most popular breeds of swine, though many other breeds are represented. Owing to market conditions little attention is paid to bacon types. Six-month-old boars fetch \$15 to \$20 and up, according to age and quality.

There is a limited but growing market in British Columbia for good herd-headers and first-class females of all the breeds represented there, at considerably better prices than what I have quoted of good animals, but I would like to advise all who anticipate taking advantage of that market, no matter what class of stock they are handling, that they should get in touch with the prospective purchaser first, and dispose of the greater part of their contingent on order, rather than to ship that great distance on the chance of securing a market for their stock.

MISTAKES, COMPETITION AND OPPORTUNITIES.

My remarks would be of little value to the breeders here who expect to market stock in British Columbia if I did not point out some of the mistakes of the past. Judging from some shipments sent to British Columbia, Eastern breeders seem to labor under a misapprehension as to what is good enough for that Province. While we have received some very excellent animals,

which have proved of great value to our herds, others have been far short of the mark, and I doubt if good judgement was displayed in shipping animals which never should have escaped the veal stage of their lives, to a new and developing market. I think, in many cases, the animals did the vendors more harm than the benefits that would be derived from their sale. Owing to the great distance between the buyer and seller, the British Columbian has to depend on the word of the vendor to a great extent. He has to buy a "pig in a poke" as it were. I regret to say that the buyer has not always found the stock up to his expectations. For example, a prominent dairy breeder made a small importation of highly-recommended females from the East, for which he paid a good price, and did not get one good one out of the shipment; all were sacrificed on the block after a fair trial. In another case a much-lauded bull was sent out to had one of our prominent herds, and in competition with a very medium field of locally-bred stock at a spring show he was placed fourth in a class of five by an Eastern judge, and on being put up at auction afterwards his owner did not receive a bid on him. Another cause of dissatisfaction with Eastern stock has been that a number of animals have developed symptoms of tuberculosis shortly after their arrival, large percentages of some shipments being affected with this disease. In one case a valuable cow, which had been shipped out at a high price, died from tuberculosis within six months after her arrival. In other cases animals have had the stamp on their ear, showing that they had been rejected by the government test. It is useless to ship animals of that kind to British Columbia, as the Provincial Government inspectors, have been instructed to quarantine any animals appearing with this mark. Naturally, these results have created an impression that some Eastern breeders are looking on British Columbia as a dumping grounds for stock they cannot sell at home, and a feeling of distrust is perceptible in some quarters.

In catering for the market in British Columbia the herds and flocks of Oregon, Washington, California and Idaho will have to be considered as competitors. Within a few hours' ride from our southern borders personal selections can be made from breeding farms of repute in those States, and a double advantage gained by having the tuberculin test applied by Government officials, and the purchaser assured that he is not introducing disease into his herd. A greater number of breeders have been replenishing their herds in that direction of late years.

From what I have said already you will notice that we have not entirely escaped the stallion-syndicating evil. While some of the horses sold in this way in British Columbia at long prices were good, others have been very poor specimens, and in some cases affected with hereditary unsoundness. While legislation might assist in protecting the farmers against this evil all over the Dominion, still I think a great deal more can be accomplished by education.

I would like to see this matter of hereditary unsoundness pushed at every stock-judging class in the country where the horse is the subject under consideration. I think it would have the effect of increasing the value of the horse stock of the country in a very short time.

SHEEP HUSBANDRY NEEDS ENCOURAGEMENT.

One of the most urgent needs in British Columbia in the live-stock line is the stimulation and encouragement of sheep-breeding. We are spending half a million annually for mutton from outside points, while large areas of this Province are well adapted for sheep raising. The presence of the coyote is largely to blame for this in many districts. His presence makes it necessary to herd all large flocks in the daytime, and closely corral them at night, adding greatly to the expense, and even under these conditions some flock owners report heavy losses from them. It is estimated in Oregon that coyotes destroy 150,000 sheep every year, and the Government of that State has recently issued a bulletin on the best methods of riding the State of this pest. Old Mexico has almost got rid of the coyote by systematic poisoning.

The dissemination of information along these lines among the stockmen in the coyote-infested districts, and the increase of the bounty by the Government, would, I think, be money well spent.

Large sums of money are also sent out of the Province for other live stock and farm produce, while land suitable for the production of far more than we can at present consume is lying undeveloped. The Governments are making strong efforts to encourage agriculture and live stock, but I think greater interest might be shown by our Boards of Trade and other bodies of business men in the agricultural advancement of the province with good results. The beginner in agriculture should be given every encouragement in the disposal of his produce, and the preference whenever possible be given to local production. A little effort should substantially reduce these leaks, and in time stop them altogether, and conserve for the farmers and merchants of the Province something over a million dollars a year that is now almost entirely lost to them.

Live-Stock Advancing Prices.

Live-stock prices in British and American markets have advanced considerably during the past week and fortnight. The British increase began a month ago and beef cattle are now selling, in England, higher than they have sold in four years. In the American markets, the same upward movement has occurred and steers have been selling, in Chicago, for as high as \$7.20 per hundred.

It might be mentioned, in passing, that the bunch that brought this figure, the top price so far this season, were Herefords, and averaged 1495 pounds each. There has been some advance in Winnipeg, but the increase has not been in proportion to advances made at other market centers. At this market sheep and hogs are gaining a little in price and demand, but cattle have not yet shown any decided tendency to respond to the advances being made in all American and most European centers.

Fencing the Hog Pasture.

One reason why hogs are not pastured more than they are, is that hog fences are, or used to be, quite expensive. There is no use trying to pasture a hog unless you have the pasture field fenced off, hog-tight. If the fence offers half a chance at all the hogs will generally be found doing their pasturing on the outside of it, to the marked disadvantage of whatever crop happens to be growing near by.

The difficulty of procuring effective hog fencing has been entirely overcome since the advent of the woven wire fencing, and now, land may be enclosed in a hog-tight fence at no greater cost than three or four dollars per acre; the cost depending to some extent on the shape and area of the fields to be enclosed. Posts in a hog fence should be set fairly close together, or if set the ordinary distance, say thirty or forty feet apart, strong stakes should be driven into the ground along the line of fence, and eight or ten feet apart to which the lowest strand of wire could be stapled. This is effective in holding the fence down and prevents the hog from raising the whole outfit with his snout and walking out under it.

In deciding upon the size of pasture required for the hogs ordinarily kept, the following can be taken as a guide: one acre of good clover will be sufficient pasturage during the summer for two sows and their litters. If the season is good, the pasture may get ahead of the hog, but clover is so cheap a hog food, that no feeder can afford to risk running short on it. An acre of clover ought to pasture sixteen pigs. The total cost of such a pasture, including fencing, seed, and sent of land ought not to exceed seven dollars per acre. If experimental station results, are reliable and one acre of pasture is equal to a ton or two of shorts in hog feeding, then at present shorts prices there could be no question of the value and profitableness of pasturage.

Castrating Old Boars.

Some difficulty is experienced occasionally when it becomes necessary for a breeder or farmer to make a barrow of the head of his herd. The neighbours are called in or a veterinarian is summoned and after a good deal of energy has been expended, the operation is performed and the stag turned off to fatten for market. While some men make a practice of calling in their friends every time any event of unusual import is to occur, for the business in question no extra help is required, and one man alone can do the trick with more dispatch, than it can be done when half the neighborhood assemble for the fray and lend their shouts and hoarse guffaws to swell the boarish din.

One active man operates as follows: Get a rope around one hind leg. There are various ways of doing this and if the boar is a little savage some ingenuity may be required. Draw the leg up and fasten it securely to a post. Then get another rope around the upper jaw, back of the tusks, draw it up tight, and fasten it to another good strong stake. Draw both ropes up good and tight and the animal can offer no serious resistance. Make the cut as low as possible, the lower it is made the less danger there is of a pocket being formed to hold pus and retard the healing process, the wound too, will keep itself clean. In most cases nothing is applied to the cut. If anything is used a weak carbolic wash is best. Release the rope from the hind leg first. Then the one attached to the jaw. An old boar should not be operated on if he is very fat, nor in warm weather. Young pigs should be castrated at the age of four weeks and after fasting for about twelve hours.

* * *

Dr. Roone, an eminent English medical man and disciple of Prof Schenk, after an exhaustive statistical study of the problem of the predetermination of sex, announces himself definitely as favoring the theory that the sex of the offspring in the greater number of cases resembles the weaker parent. This theory is

not a new one by any means, but it has never before been so carefully looked into as in the present instance Dr. Roone's conclusion briefly, is that a male offspring is born when the father is the weaker of the two parent and a female when the mother is the weaker. The purpose, obviously, is maintain a balance and replace the weaker individual with another of the same sex before he or she disappears.

* * *

No animal is more susceptible to cold than the hog. When the sow farrows she will not be inclined to eat very much during the first twenty-four hours, but will want water. Give her all she wants but let it be slightly warmed.

* * *

It is a mistake to try to raise hogs on an exclusive diet. Give them as great a variety in their ration as the feeding stuff available will permit. Give these feeds in such relation to each other as to meet the varied needs of the hog's system. Never forget that hogs are grazing animals and for summer feeding provide plenty of pasturage of the most nutritious clovers or grasses your farm or locality will produce. Bring the pigs forward from birth to maturity as rapidly as possible making them gain every pound possible on the way. Feed the hogs at regular intervals, regulating the kind of grain used by their market values, aiming always to produce the pork at the minimum cost.

* * *

The estimated expenditure for agriculture in Ontario for 1908, is placed at \$533,263, which will probably be increased by several hundred thousand dollars more when the supplementary estimates are passed. Of this \$107,837, is devoted to agricultural and horticultural societies and \$220,454, to the Agricultural College, for salaries, expenses and the maintenance of its various departments.

* * *

Shingles are now made under a patented process from asbestos fiber and Portland cement. Owing to the enormous pressure under which shingles are manufactured, it is said that they absorb, when fresh, only about 5 per cent of their weight of water; and when exposed to the atmosphere for a year or two that hydration and subsequent crystallization convert them into impermeable roof coverings.

Herd Records.

To those not brought directly in contact with the practice of breeders, by their connection with the herd and flock books of the various breeds of improved live stock, it may seem a little singular that there should be any necessity for urging upon those who grow pedigreed stock the importance of keeping full and complete private herdbooks. It would appear that if a man were sufficiently interested in a breed to handle, mate and manage it as it should be managed, he would find a pleasure in a well-kept herdbook containing the fullest details in regard to his flock or herd. Nevertheless, it is a fact that many breeders are careless in this respect and rely on loose memoranda for some things, and on memory alone for others that should always find a place in a carefully and systematically-kept private herdbook.

There are a great many breeders who do this, and who are as careful and as prompt in keeping up the private herdbook as is the merchant who holds himself prepared at all times to go into court, if necessary, and swear to his books of original entry; but there are a great many who do not.

No breeder should rely on either memory or loose memoranda. Every breeder should keep a service-book that should be written, as books of original entry in trade are required to be written—"at the time the transaction takes place." He should keep, besides, a herdbook that will contain every material fact in the life-history of every member of the herd, and it would be well if it contained every interesting fact as well as those that are at the time deemed material. These details should be written up as the facts occur, while they are perfectly fresh in the mind. They should be kept in permanent form so that they may all be susceptible of proof, even after the lapse of many years, if need be. An accurate well-kept herdbook saves the breeders lots of trouble when he comes to record, and is a source of satisfaction in every way.

All breeders, young or old, should keep, carefully and systematically, private herdbooks that will record, immediately and permanently, all the facts that are material to the accuracy and validity of the pedigrees they propose to sell along with the animals they offer for sale.

FARM

Packing After Plowing.

The value of a firm soil is pretty well understood by the experienced farmers, and the evil effects of an open soil have probably been noticed by those of less experience.

A combination of our soil and climatic conditions makes it necessary that the soil which has been loosened by the plow should be packed down again upon the subsoil. If this is not done the air circulates about the roots of the growing crop and dries out the moisture which the plants should get. In some parts of the world, where the rain fall is more abundant, the soil becomes packed by natural means, or the rain is so plentiful that the problem of keeping the soil dry is a greater one than keeping moisture down. Fortunately, our soil is so constituted that, generally, harrowing is sufficient to pack it down; and where the harrows are too light the disc does the work. Where the land has been plowed in the fall, the harrowing should have been done in the fall also, but very often it is not. This makes it necessary to get that land packed down in the spring, even though the surface is mellow and the drill makes its own seedbed. On spring plowing there is often a temptation to sow right after the plow, as the land is generally in fine tilth; but it should not be forgotten that the soil needs settling together, and at least two strokes of the harrow is none too much to get it in good condition to hold moisture.

There is also a further advantage in getting spring plowing well pressed down before sowing and that is, that it is generally stubble that is spring plowed, and stubble is almost sure to have some weed seeds in it. These weed seeds will grow up with the grain and a lot of them may be killed by harrowing when the grain is three or four inches high. But if the soil is not firm, so that the roots of the grain may hold tightly, the harrows will pull out a lot of the crop with the weeds. And we have no hesitancy in advising the harrowing of a growing crop to kill weeds and conserve moisture, but first, get the seed in a firm soil especially on spring plowing.

The rain and snow which fell generally all over the wheat belt, from the twenty fourth to the twenty-seventh of last month was just what every one was glad to see. Wheat was pretty generally sown on all the fall prepared land and the moisture which fell settled the land down and hurried germination. On the stubble land it also gave a firmness that is much needed, and furnished a supply of moisture that will last for some time.

Crops For Sod.

EDITOR FARMER'S ADVOCATE:

I have about fifteen acres of land that I have used for hay; but now it is giving very little return and I have, therefore, decided to plow same this spring.

This piece of land was cleared out of poplar bush and seeded with clover, mostly, just on the clearing. It has been used for hay land and pasture now for about four to five years. Would you advise me to sow any this spring? and if so, what should I sow? I have thought of sowing oats and cutting them green, and then plowing the land again this summer, say in August, so as to have it well prepared for the crop next year.

Gimli, Man.

B. B. O.

As our correspondent does not say what crops would be most preferable, the matter of making suggestions is not so simple. If he wishes to confine himself wholly to grain crops he might plow fairly deep, cultivate well, and sow oats with a fair prospect of getting a crop; or better still, sow flax for which there is a good market in this country. Of course deep breaking and the use of the discs would be required to get the soil into shape for oats, but flax can be grown upon much rougher land, so that the way in which the land worked up would be some guide to the crop to be sown.

If our correspondent were patronizing a creamery, raising hogs, or keeping a general stock farm, he might work part of this field up for corn or rape. Corn would require a fine seed bed and should be sown before the twentieth of May, but rape may be raised on a much rougher surface besides there would be until the middle of June to work up the sod. We would certainly advise seeding to some crop if the land breaks anyway smoothly at all, or unless it is desired to prepare land this summer for next spring's seeding.

The Action of certain Smut Preventives on the Vitality of Wheat.

EDITOR FARMER'S ADVOCATE:

Enclosed, I am sending you the results of an investigation that we have just concluded, showing the effect on the vitality of sound, and frosted wheat, of certain smut preventives. You will, I am sure, fully realize the importance, to your readers, at the present time of the information contained in the paper.

Owing to the fact that comparatively large quantities of frozen wheat will be used as seed in certain sections of the North-West this spring, it has been thought desirable to ascertain the extent to which such wheat (which is known to have an impaired vitality) is affected by the various treatments to which it may be subjected for the destruction of smut. However, in order that data might be obtained that would be useful in the treatment of sound, thoroughly ripened wheat, as well as that more or less injured by frost, the complete series of the grades of the Manitoba Inspection of 1907 was selected for this investigation. Indications of frost (or at all events of unfavorable weather conditions) are first apparent in No. 3. Northern; grades lower than No. 3, and more especially No. 6, and "Feed," show a large proportion of frosted and shrivelled grain.

SOLUTIONS USED.

Formaldehyde:—Two strengths were employed; the stronger, 1 lb. to 32 gallons; the weaker, 1 lb. to 48 gallons. It is generally admitted that 1 lb. to 32 gallons (3 parts in 1000) is sufficiently strong to kill smut spores. It is the strength more commonly advocated. With regard to the weaker solution employed, 1 lb. to 48 gallons (2 parts in 1000), it must be conceded that evidence of a definite character as to its effect on smut spores is wanting. It seemed very desirable, however, to employ for wheat with impaired vitality a weaker solution than that ordinarily used, and accordingly the solution noted (2 parts in 1000) was decided upon, assuming that in all probability any further dilution might be ineffective in the destruction of smut.

Bluestone:—Two strengths were employed; 1 lb. in 8 gallons, and 1 lb. in 12 gallons.

The argument used in the preceding paragraph applies equally to the selection of the two bluestone solutions as to those of formaldehyde.

TREATMENT AND METHOD OF TESTING.

The wheat was immersed for 5 minutes, care being taken to see that every kernel was completely moistened with the solution. The grain was then taken out and put on glass, placed where it was allowed to dry in a layer not exceeding half an inch in thickness.

Two sowings were made, the first at the expiration of 24 hours; the second, three days after treatment, in order to learn what effect delay in sowing the treated wheat might have on vitality.

The grain was sown in soil, using ordinary greenhouse flats, and 200 kernels employed for each test. Countings were made at the end of 10 days and 14 days. Final countings only are given in the subjoined table.

Effect of Solution of Formaldehyde and Bluestone on the Vitality of Wheat.

	Untreated	Formaldehyde 1 lb. in 32 gallons.		Formaldehyde 1 lb. in 48 gallons.		Bluestone 1 lb. in 8 gallons.		Bluestone 1 lb. in 12 gallons.	
		Sown 24 hours after treatment	Sown 3 days after treatment	Sown 24 hours after treatment	Sown 3 days after treatment	Sown 24 hours after treatment	Sown 3 days after treatment	Sown 24 hours after treatment	Sown 3 days after treatment
No. 1 Hard	98	84	78	93	89	54	51	76	56
No. 1 Northern	97	75	78	91	86	57	63	74	66
No. 2 Northern	95	78	75	80	88	52	51	69	70
No. 3 Northern	93	62	56	69	73	46	33	50	47
Commercial Grade No. 4	96	58	56	71	71	48	41	44	52
" " No. 5	88	46	40	50	66	17	35	48	49
" " No. 6	89	51	61	73	64	33	28	35	52
Feed	62	37	29	45	47	37	30	54	31

Untreated Wheat:—No very appreciable falling off in vitality is to be noticed until grade No. 5, is reached where a decided, though not exceedingly large, reduction is to be observed. Nos. 5 and 6 are practically equal, but "Feed" is markedly lower, with a vitality in the neighborhood of 60 per cent. and a larger proportion of weak plants than the higher grades.

As regards rapidity of germination—as determined by the appearance of the seedling—we found more or less constant falling off from the first to the last of the series, and this was more especially noticeable in the grades below No. 3. Our observations have led us to conclude that the greater the retardation of germination, whether in treated or untreated grain, the larger will be the number of weak plants and, usually, the lower will be the final percentage of vitality.

Treated Wheat:—1. It will be observed, first, that in every instance the action of the smut preventive has been to lower the percentage of vitality. In the majority of instances this effect has been of a very marked character.

That the stronger the solution, the greater the injury; this is true alike for formaldehyde and bluestone solutions. In the table of results certain excep-

tions will be found, but they are, it will be noticed, chiefly among the lower grades.

3. That the degree of injury from the preventive solutions is, as a rule, decidedly greater in the lower grades (which contain more or less frosted wheat) than in the first members of the series which, as already noted, are free from frosted kernels.

WHEAT SOWN 24 HOURS AFTER TREATMENT:

4. That with the exception of "Feed" (which shows irregularities in many of the tests) all the grades have suffered more from the bluestone than from the formaldehyde treatment.

5. That, comparing the results from formaldehyde solution 1 lb. to 32 gallons with these from bluestone 1 lb. in 8 gallons there is a difference of vitality ranging from 10% to 30% in favour of the formaldehyde solution.

6. That the treatment with the more dilute formaldehyde solution, 1 lb. in 48 gallons, is less severe than that with the more dilute bluestone solution, 1 lb. in 12 gallons.

7. That the stronger formaldehyde solution (1 lb. in 32 gallons) affects the vitality of the wheat to a less degree than the more dilute bluestone solution.

WHEAT SOWN 3 DAYS AFTER TREATMENT:

8. That a delay of 3 days in sowing the grain treated with the stronger solutions, both of formaldehyde and bluestone, lowers the percentage of vitality. Injury from this cause is not so apparent in the wheats treated with the weaker solution.

9. That delay in sowing not only reduces the percentage of vitality but results in increasing the proportion of the weak and slender plants, indicating an injurious "after effect" from both formaldehyde and bluestone solutions.

Retardation of germination always results from treatment, the length of time before the appearance of the seedling being proportionate, partly, to the strength of the solution used and partly to the period elapsing between treating and sowing the grain. The degree of this retardation in germinating is a fair measure of the final effect on the vitality of the wheat.

10. As in the case of the wheat sown 24 hours after treatment, the grain treated with the stronger formaldehyde solution has a higher vitality than that from either of the bluestone solutions, and we further observe the results from the weaker formaldehyde solution show much less injury to vitality than those from the weaker bluestone solution.

A survey of the whole results show that the solution causing most injury to the wheat germ was the stronger bluestone, 1 lb. in 8 gallons, and following in the order of their effect came the weaker bluestone, 1 lb. in 12 gallons, the stronger formaldehyde, 1 lb. in 32 gallons with the weaker formaldehyde, 1 lb. in 48 gallons, as the least injurious.

In view of this work, it seems advisable that in the treatment of grain the vitality of which may have been impaired by frost, a solution of formaldehyde not stronger than 1 lb. in 48 gallons should be used and that the seed should be sown with as little delay as possible after treatment.

Comparing these results with those of a similar character obtained in previous years, it would seem

wide, to fit under the shingles, and with a pipe leading to the bath-tub in the bath-room below, from which, by means of a tap, the water is drawn into the tub, while the used water runs to a sewer pipe, and to a cesspool in the back yard, a short distance from the house. Hot water is provided by means of an iron heating tank, connected with the kitchen stove, a water pipe being installed in the fire-place of the stove for that purpose, and a tap supplies hot soft water at the kitchen sink. This tank is, of course, supplied by a small iron pipe from the attic tank, and the weight of the water from above forces the hot water to the bath-tub, where it also is drawn from a tap. While we have a force pump at the kitchen sink to draw water from the cement cistern in the back yard, and connected by a pipe with the tank in the attic, which in time of drouth we can fill from the cistern, we have so far always had enough water in the tank, caught by the trough in roof, to supply our needs for bathing and hand-washing. And when the tank gets filled, as, of course, it often does, an overflow pipe carries the surplus into the eavestrough, whence it runs into the cistern. An overflow pipe from the cistern carries the surplus to a hole in the ground, filled with stones and gravel, where it soaks away. A manhole in the top of the cistern is covered by a cement cap, which is covered with earth, and grass grows upon it, as upon all the yard. The only difficulty with this arrangement is that, in case of the water supply in the attic tank failing, there would be danger of an explosion at the stove, but this can be guarded against by a little watchfulness, and carrying a few pails of water to the attic tank, if one has not a force pump.

The cost of such a provision of rain water for the house need not be very much, though I am not prepared to state the cost in our own case, as this arrangement was included in the whole contract, for which tenders were received. But it will readily appear that, even if one did not see his way to go in for the complete outfit in a house that has been built, he could at least instal the trough in the roof, the tank in the attic, and the bath-tub. And, if a room were not available for the tub, it might be possible, by a slight rearrangement of partitions, to provide a small room for the purpose. With a large enough tank in the attic, I see no reason why the convenience of a lavatory or closet might not also readily be provided in the bathroom, as is common in city houses.

A water service in the house from a well, by means of a windmill to a tank in the barn or house, or elevated outside, is quite practicable, at a moderate expense, and is a great saving of labor; but soft water is such a luxury for bathing that the wonder is that so many well-to-do farmers, who could well afford to provide this comfort for the family, are content to be without it. Hoping that these hints may be helpful, and that others may contribute suggestions along the same or similar lines.

S. C. J.

Why Clover Sometimes Fails.

One of the critical times for clover is when the nurse crop is removed. Some farmers in attempting to grow clover, seed the land so heavily with grain that the clover grows weak and spindly in the shade. The result is that when the nurse crop is cut the clover dies, not because of lack of moisture in the soil, but because the plants after growing all their life in shade are suddenly exposed to the sun right in the hottest weather of summer. The result may not prove disastrous; the growth of the crop may be only temporarily checked; but time is lost at the very stage when the plants should be making all the growth possible, the better to withstand the winter's onslaught. Clover needs sunshine every day from the day the seed is sown until the nurse crop is cut. Oats or barley, used as a nurse crop for clover, should be thinly seeded, and should either be a variety that ripens very early, or should be cut for hay before mature. Heavy seeding with lots of straw in the grain crop, may produce a satisfactory cereal yield, but when the crop is cut, the clover is very likely to be injured and the chances of obtaining a good stand of it for hay next season, much reduced. One bushel per acre of oats or barley is enough seed to use when the land is being put down to clover. Seeding as thinly as this may seem a little unreasonable but experience has shown that even from this small amount of seed a fair grain yield can be obtained and the result in the end is favorable to the clover.

* * *

FRANK T. SHUTT.

Chemist, Experimental Farm, Ottawa.

The Farmer's Bath-room.

EDITOR FARMER'S ADVOCATE:

Having noticed in a letter in a recent issue a reference to the rarity of the luxury of a bath-room or a bath-tub in farmhouses, I am led to give my experience in installing this convenience in a house built two years ago. We put in the attic an oblong wooden tank, 6 feet long, 3 feet wide, and 3 feet high, made of two-inch matched lumber, lined with zinc; and above the centre of the roof we put 16 feet of galvanized-iron trough, with a flat side, about a foot

It is an advantage to soak Mangel seed in water for twenty-four hours, or so, before sowing. The soaking softens the outer covering of the seed and makes it easier for the two smaller seeds inside this outer crinkled shell, to gain moisture, germinate, grow out and produce plants. Soaking simply saves time for the seed after it gets in the soil, ensuring in addition a stronger germination. The drill needs to be opened up pretty wide to handle soaked seeds, both on account of the increased size and the tendency of wet seed to clog together. It is seldom, however, that too much mangel seed is used. Better use enough and be sure of a good even stand, than to economize in seed and find when the plants are up that a quarter or one-third of each row is a blank. Use plenty of seed, anywhere from ten to twenty pounds per acre.

DAIRY

By a typographical error in Prof. W. J. Carson's article in last week's issue it was made to appear that butter might contain from 14 to 17% moisture. The figures should have been 12 to 14%. Butter by law, may not contain more than 16% moisture.

The Patron's Duty to the Cream Gathering Creamery.

The treatment cream receives on the farm is the all important point in the making of high-class butter with the cream-gathering system. That good milk is the basis of good cream, and that good cream is an essential if high-class butter is to be produced, is a dairy fundamental that has been drilled into us ever since dairying became an industry. Given good cream, any buttermaker of ordinary abilities can turn out a fairly good product, but no one has yet come forward with an invention, or been able to suggest a method, by means of which ill-kept, half-rotten cream can be made into butter that will come up to the requirements of the critical trade, that will be high-grade in every particular, that will take the top-notch price; the kind of butter that patrons are generally looking for, and are disappointed in their returns, and dissatisfied with the creamery if their maker does not produce it.

Where there are as many different grades of cream coming as there are farmers patronizing the plant, it does not require any profound knowledge of dairying to know, that any man who can transform such stuff into gilt-edge product, has his work cut out for him, and is worth almost anything, in the line of wages, that he cares to name. This has been the difficulty with the cream-gathering creamery ever since the system was evolved: farmers cannot be induced to care for the cream as it should be cared for, and by neglecting to give their raw material its proper care, they not only increase the difficulties of the maker, lower the average price of the finished product by depreciating its quality, but destroy the usefulness and quality of better kept cream, delivered by their more careful neighbors.

Where the cream is delivered every two days or at less frequent intervals, or even if delivered every day, it requires some attention to prevent it from becoming sour before it reaches the creamery. For the making of number one butter, it is essential that the maker have charge of the cream during the ripening period, that he may control the development of acid and have the cream at churning time, of known and uniform acidity. This is not possible where cream of all degrees of acidity is delivered to him. Pasteurizing, which some years ago was regarded as a treatment that would render cream of almost any age or condition fit for butter-making purposes, will not produce the most satisfactory results of the cream if soured before it is heated, though it may improve, somewhat, the quality of the resulting product. For best results, the cream must be sweet before it goes into the pasteurizer. Then the butter-maker has a clean seed-bed for planting his culture in, to develop the acid-making organism, and can check development when the cream is sufficiently acid for churning.

From the time the cream is taken from the separator on the farm, it should be kept at as low a temperature and in as clean and pure condition as the facilities for handling it will permit. Ice is essential for best results, but if a supply has not been put up the cream cans should be kept in water of as cold a temperature as can be obtained. The practice of hanging the cream cans in the well, while it has some serious disadvantages, is about as good a method as the farmer has of keeping the product cool, and where only four or five cows are kept it works fairly well. There is, of course, some danger of fouling the water in case a rope broke, or the cans got in too deep. Another point of importance is to keep the cans sheltered from the sun during the trip to the creamery. A piece of wet canvas thrown over them will help greatly and where the distance from the farm to the creamery is several miles, something of this kind is a necessity.

Patrons are too often prone to lay all blame upon the maker, in case the product of the creamery does not come up to their expectations in quality and price. A skillful maker can do much to increase the patrons returns from the creamery.

but the patron himself can do a good deal more towards raising and maintaining the quality of the product manufactured, by supplying a raw material from which it is possible to make a high-class product.

Milk and the Breeds.

The Minnesota Experiment Station sent out a bulletin, recently, in which a summary is made of tests conducted there and others carried out during the St. Louis Exposition, on the question of economy of milk production in some of various dairy breeds.

This question of economy of production and the comparing of the milking qualities of the different breeds, has long been a popular field of experimental work. We do not know that the bulletin in question adds anything to the sum total of human knowledge in the matter, but it summarizes some interesting results in a concise, readable way. It was shown that with reference to economy of production, the Jerseys returned a pound of butter fat to 12.051 pounds of nutriment consumed; the Holsteins used 14.839 pounds; the Shorthorns 15.52, and the Swiss 16.919 pounds to a pound of butter fat. There are physiological reasons for the difference in nutriment required by these breeds for the production of a unit of butter fat. Primarily the discrepancy is caused by the fact that the relation between fat and solids not fat differs in the various grades of milk. As a general proposition, milk carrying a low per cent of butter fat carries relatively more solids not fat than is the case with milk containing a higher per cent of fat. Taking, for example, the daily average yield of butter fat and solids not fat by the four groups of cows under review—the Swiss cows yielded daily 1.6 pounds of butter fat and 3.92 pounds of solids not fat; that is, to 1 pound of butter fat they yielded 2.45 pounds of solids not fat; the Shorthorns yielded 2.33 pounds, the Holsteins 2.31 pounds and the Jerseys 1.87. It stands to reason that cows cannot produce 1 pound of butter fat and 2.45 pounds of solids not fat with as little nutriment as 1 pound of butter fat and 1.87 of solids not fat can be produced.

It appears also that the great bulk and weight of green forage fed to the Swiss and Holstein cows called for the expenditure of an abnormal amount of energy in its mastification and passage through the digestive tract. For, after making due allowance for the nutriment required for maintenance, for milk production, and for gain in weight, the daily average of nutriment not accounted for was by the Swiss cows, 5.889 pounds per cow; by the Holsteins 3.688 pounds; by the Shorthorns, .752 of a pound. The larger waste by the first two is probably partially due to the weight and bulky character of the feed and with all, except possibly the Shorthorns, because of a daily nutriment supply in excess of their powers of assimilation. It is quite probable that the amount of nutriment allowed daily for maintenance was in excess of the amount actually used, and that the daily loss or waste of nutriment may have been even greater than the amount calculated.

Second, the Swiss cows had to support bodies weighing on an average 1329 pounds, the Shorthorns 1257 pounds, and the Jerseys 948 pounds. Other things being equal the larger the body, the more nutriment is diverted to maintenance, and proportionally less available for dairy products.

Third, small cows consume relatively more feed and produce more dairy products than large ones. The Jerseys, per 1000 pounds live weight, consumed daily on an average 17 per cent more nutriment than the Holsteins, 20 per cent more than the Swiss and over 50 per cent more than the Shorthorns; but they returned 43 per cent more butter fat than the Holsteins, 70 per cent more than the Swiss, and 100 per cent more than the Shorthorns.

Estimating Individual Milk Yields.

From some investigation work carried on in England, it has been shown that the frequency with which the milk of cows is tested is a point of considerable importance to the dairy farmer who is keeping a record of his cows. In the experiment the milk of twelve cows was tested daily for a period of ten weeks, and this gave an opportunity of judging of the error which would arise by estimating the fat content of the milk at intervals of one, two, three, and four weeks. The tests for the percentage of fat in the milk showed that the estimated results for the whole twelve cows taken together agreed very closely with the average actual results obtained by testing daily. as the errors in the case of individual cows compensated one another. The errors in the individual results, on the other hand, were in some cases considerable. With samples taken at intervals of seven days the error in six cases was 3 per cent., in two cases 5 per cent., and in one case it was 11 per cent. In three cases the sample gave a correct result. The position was much the same when the test was taken fortnightly, but when it was taken at intervals of three weeks or a month, the errors became much greater, and ran up to over 20 per cent. It appears from this that for the purpose of estimating the percentage of fat in the milk of individual cows it is not advisable to take the tests less frequently than on one day in each fortnight, and even then the estimated result can only be regarded as approximate.

The milk-yielding capacity of a cow can be estimated with approximate accuracy by weighing the

milk for one day a week or one day a fortnight, and multiplying the result by seven or fourteen. The maximum error which occurred in estimating the milk of twelve cows at the farm in question from the weight on one day a week or one day a fortnight did not exceed 3 per cent in any one case. If taken at greater intervals than this the error in some cases rapidly increased, and occasionally amounted to from 10 to 19 per cent.

The Dairy Quality in Cows.

A cow's food is used for the two purposes, of maintaining life and making milk. Energy is required to carry on the physiological process of the body; digestion, respiration, the circulation of the blood, the maintenance of bodily temperature. Energy cannot be created. It is derived from the food the cow consumes. If the ration is not sufficient to furnish all the energy required for these various functions, then animal tissue previously built up is broken down, the cow loses flesh and will finally perish unless the deficiency in her food supply is made up. A ration that supplies her with just sufficient nutrients to provide for the carrying on of these functions, and with nothing to spare, is spoken of as a maintenance ration. A cow will produce milk on such, or on a ration even less than maintenance, but she loses flesh in doing it. Food fed beyond the requirements of maintenance is used for milk production or for the laying on of flesh, and the greater the quantity of extra food the more there is available for flesh or milk formation—up to a certain point. The inherent difference between the milk making and flesh producing breeds of cattle, is in the use to which they put this extra food. One of two cows in the same stall may be extracting twice as much butter fat from a given ration than the other. She possesses that ability that is vaguely spoken of as dairy quality. The other cow lays on fat, as her requirements for maintenance are satisfied, but shows only a small increase in milk productions. Each of these cows is a representative of two distinct strains of cattle, each strain of which has been bred for generations for the express purpose of doing as a breed what these two are doing as individuals, one to produce milk the other to make meat. One would think that any dairyman in the country would be alive to the necessity of using the specially developed kind for milk production, but strangely enough the other kind occur with much frequency in our herds. A man might just as well cut hay with a reaper and call it the best way, as to milk cows that were specially functioned to produce milk and profess there was economy in doing so.

HORTICULTURE

The Birch for Farm Planting.

Please give me information through your journal, on the birch tree. Is it valuable as timber? What are its uses? Is it adapted for planting around a farm; would it take the place of maples down east? Could you suggest a better tree for this district? Is it a rapid grower? Is it difficult to transplant?

Do the following bulbs endure this climate, and prove satisfactory, crocus, snowdrop, tulips, lil of the valley, and Japan iris?

New Ontario.

J. M. M.

There are at least two varieties of birch to be found in the New Ontario districts, the white or canoe birch, and the yellow or gray birch. The two varieties are most readily distinguished by their bark. The bark of the canoe birch is white on the older branches and trunk, and reddish on the twigs, and is readily separated into papery sheets. The bark of the yellow birch is more of a yellowish grey, and the layers separate off and coil into rolls which hang loosely about the trunks. The inner bark and leaves are spicy and aromatic similar to wintergreen.

The white birch is probably the widest distributed tree in Canada, and is found as far north as the Arctic ocean, while the yellow birch is confined more to south eastern Canada.

The white birch is a tree of good form and pretty habit; it is especially beautiful in the spring when the young leaves are unfolding and in winter is valuable for the contrast afforded by its white bark with other plants. It lends variety to windbreaks and lawn plantations. It prefers a moist soil, but does well on any retentive soil, and is perfectly hardy. The wood is largely used in the making of spools and shoe pegs, in the manufacture of wood pulp and for fuel. It is one of the very few woods that burn well when green. It decays quickly and should always be cured under cover. The Indians employ it for their sledges and paddles, the frames of their snowshoes and handles of their hatchets. The tough

resinous durable bark of this tree is impervious to water, and readily separated into layers. It is the most valuable of our northern woods, and is sometimes used by the Indians for covering their canoes and houses, and for making baskets, drinking-cups, etc.

The wood of the yellow birch is one of the most valuable of our northern woods and is sometimes termed American mahogany. It is largely used in the manufacture of fine furniture, hubs of wheels and for small wooden articles such as clothes pins, pill boxes, etc. As fuel it is much superior to canoe birch. The bark is used to some extent for tanning purposes. The volatile oil used for water, etc., is derived to some extent, from this species, though mostly from the sweet birch (*B. lenta*.) It requires a cold moist soil to develop its best form, and it suffers severely from drouth; on this account it is not desirable as an ornamental tree or for prairie planting.

If the birch is used for farm planting, it should be set with some other tree, such as spruce, tamarack, maple, native pine, ash, etc., to protect it from strong winds and heavy snows, as these break it down quite easily. Birch does not grow rapidly and may be transplanted, as is maple or elm in late May or early June. If it is native to any locality it could be used to good advantage in a plantation, and some of the ornamental varieties are widely planted for ornamental purposes.

Crocus sometimes do fairly well, but should have a cover of mulch, unless covered well with snow. The snow drop is not generally a success, probably owing to freezing and thawing in the spring. Tulips and lily of the valley are generally quite hardy. Japan iris requires a moist soil. It is not as successful as the German iris.

Prizes for Homesteads.

There is an item in the prize list of the Winnipeg Exhibition, that is worth noting by many farmers. The paragraph referred to, is an offer of substantial prizes for photographs and drawings of the farmsteadings that gives evidence of the most convenience, comfort, and taste in arrangement. Throughout the country there are many farmsteadings eligible for such a prize but in the past the section has never been well filled.

This provision of the prize list should work well into the scheme of the Director of the Agricultural Societies in Manitoba, to conduct competitions in good farms. Any district which has exceptionally fine farms should be interested in being represented in the exhibition competition. Needless to say the extent and arrangement of the plantation of trees about the buildings will go far toward winning the prizes. Last year the prize was won by a Saskatchewan farmer, although there are many districts in Manitoba that have an advantage in age.

The Prizes for Plantation.

The Brandon Horticultural Society, each year, awards a cup to the farmer whose tree plantation indicates the most advanced ideas in planting and greatest attention in the care of the trees. This award is made each spring and was captured this year, by Mr. Gus Wight, of Napinka, who also breeds Clydesdales. There were three competitors: Messrs. Wight, of Napinka, Rowe, of Nesbitt, and Stewart, of Oak River. Both Messrs. Rowe and Stewart have held the cup and both plantations are models of such work, but Mr. Wight was given the award this year, on account of the greater extent of his plans for all the purposes of windbreaks, shelter belts and screens for a large farm.

The Small Fruit Garden.

The advantages of a small plot of fruits such as currants, gooseberries, strawberries and raspberries are so numerous and apparent that one would expect to find such a garden on every farm. But such is not the case. Drawbacks met the first planters of these fruits in the Northwest, and the impression spread fast that the climate made their growth impossible. This false impression is being dispelled on every hand aided by more hardy varieties and a better knowledge of the best methods of cultivation. There is practically no district in the North West where small fruits cannot be grown, but a certain amount of shelter and protection must be furnished in the way of bluffs or plantations of forest trees. It is also absolutely necessary that the soil where small fruits are grown be kept cultivated during summer. It is simply a waste to plant forest bushes or any kind of tree on sod, or to leave them to fight for their existence with weeds and grass.

The bush fruits should be set in rows so that the land between may be cultivated with a horse

hoe, or so far apart that a two horse cultivator or disc could be used. Strawberries should also be set in rows four feet or more apart and a fresh plantation set out every second season from the new runners of the old patch. These plantations should be thoroughly cultivated the first season and covered with dry manure in the fall. When this is removed in the spring the plants will be found healthy and vigorous.

Valuable suggestions are made by Mr. Buchanan of St. Charles in his book "Horticulture in the North," from which we select the following: "Strawberries are most frequently grown on what is known as a matted row system. Nearly all large growers follow this plan. The rows are marked out about four feet apart, and in these rows the plants are set from one foot to 18 inches apart. This is closer than is usually recommended, but it is not too close for our climate as, the plants do not set as freely here as in moister climates where the season is longer. The lesser distance is safer. The space between the rows should be kept well cultivated at frequent intervals, for which the one-horse cultivator is used, always cultivating in the same direction after the runners start, so as not to drag the runners forward or backward by cultivating in opposite directions. Cultivation must be kept up until fall, or toward the end of August. In addition to the horse cultivation, it is advisable to go over the rows several times with a hand implement, and throw a little earth over the runners here and there, to hold them in place. If the runners are shifted about with the wind, the young plants will have a slim chance to take root. This work is very important in our dry and windy climate. Weeds growing between the plants, not reached by the cultivator, should be removed by hand. It is also necessary to go over the rows the first season and pinch off the blossom stems as soon as they are sufficiently developed. It is not fruit, but healthy, strong plants that are wanted the first year. The parent plants should not be allowed to exhaust themselves in producing fruit, but should give all their energy to producing new plants. It is these new plants that will give the fruit crop the following year. If the work has been a success, by the fall of the first season a solid row of plants, 18 inches wide, should completely cover the ground."

The time to set out strawberry plants is in the spring after the land has warmed up and grass has made considerable growth. No exact date can be given for such work as so much depends upon not the season.

The varieties recommended are: Crescent (Pistillate) Warfield, Haverland, Bederwood, Senator Dunlop, Sharpless.

CANE AND BUSH FRUITS.

These fruits are so easily grown that anyone who provides shelter from the winds and keeps the land cultivated may expect a fair crop and a shelter belt may be had of willow in about two seasons.

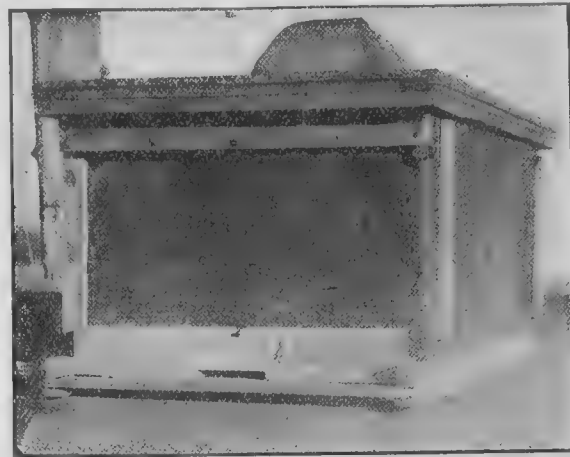
Varieties recommended are: raspberries, Turner, Philadelphia, Dr. Reider, Loudon, Shipper's Pride, King, Minnetonka Ironclad, Cuthbert Marlboro.

Currants, red and white, White Grape, Fay's Prolific, Red Dutch, Victoria, North Star, Ruby Castle, Stewart, Pomona, Red Cross and London Market; Black Lee's Prolific, Black Naples and Black Champion.

APIARY

Protecting Bees in Spring.

When the bees are set from the cellar, the queens commence to deposit eggs in the cells. After the lapse of about three days, they hatch into tiny "grubs," or larvæ. Then they are fed by nurse bees for six days, when they (the cells containing them) are sealed. In twenty-one days from the time the eggs are laid, fully-developed bees emerge. This continues the entire season of activity. Now, of course, old bees die off, too, and if this occurs faster than young ones emerge to take their places, such a colony will in due time become extinct. This state



HIVE WRAPPED IN BUILDING PAPER

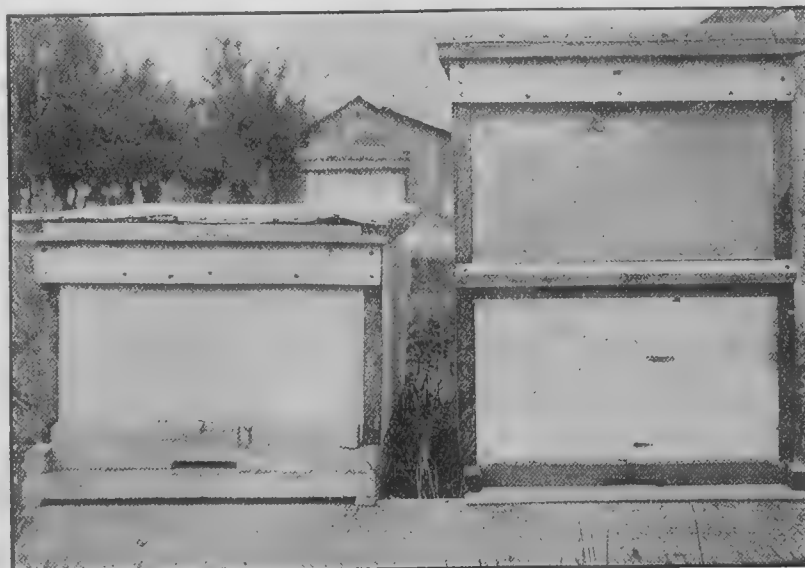
of affairs may be due to one or more of several reasons. But perhaps the most common cause is cold, unfavorable weather.

For eggs to hatch, and the resulting larvæ to develop into mature bees, the bees must maintain the temperature within the cluster at from ninety-two to ninety-eight degrees F.

After perusing the foregoing prelude, the reader will be better able to understand the why and wherefore of giving bees more protection than is generally accorded them. If hives have cracks and holes in them, through which the heat generated by the bees within can escape, if they are exposed to cold piercing winds, how can the bees keep the temperature at the right point over a large comb area? They cannot well do it, with the result that, when the nectar flow from white clover commences, there are too few bees per hive for a large surplus to be stored.

In the first place, if it can be done, the apiary should be located where it will be sheltered from cold, piercing winds. Farm buildings, a row of evergreens, or a piece of woods, or a high board on the side from which the coldest winds come, will break its force. When apiary is much sheltered in this way, protection for individual hives is perhaps not of much advantage, but such ideal conditions do not often exist. For this reason, each hive, or pair of hives, if they are placed this way, as is the case in the writer's apiary, should have old doors, wide pieces of boards and the like leaned against them on the windward side.

As is known, warm air rises. Now, a wooden cover when the propolis connections have been broken, will leave cracks through which heat can escape. To overcome this, I use oilcloth under the covers. On top of this is put a piece of building paper. I also



ENTRANCE CONTRACTORS IN PLACE.

The reason I now use pieces of building paper is because I could not get enough of the former.

The coated (enamelled) side of the oilcloth must be used towards the bees. If the other side is towards the bees, or no oilcloth is used, the bees will gnaw and pull it to pieces. For several years building paper has also been used for protecting outside of hives. The dark color of the paper absorbs the sun's rays readily, and thus the bees are better enabled to maintain the proper temperature over a large comb surface. The paper also is good protection from the penetrating winds that are so frequent during early spring. Some wrap the top of hive, too, with paper. I don't like this, as every time a hive is to be opened, the entire wrapping must be removed. When I use this form of protection, I have oilcloth and a piece of building paper under each cover, as with any other way.

Pieces of paper as wide as the hive are deep, and several inches longer than the four sides of a hive. body measure, must be cut. Now wrap one piece around a hive and fasten on each corner, and where the two ends meet and overlap, with strips of wood, as shown in the accompanying illustration. Slim nails should be used, so they can be easily pulled out when the paper covers are removed. As the pounding that is necessary for driving in the nails disturbs the bees somewhat, it is better to do the work when it is warm enough so that the bees are on the wing.

This form of protection can be left on till about the first of June, or until the weather has become "settled." The paper, if not left outdoors, can be used for a number of seasons.

As hives are made nowadays, there is a three-eighths-inch entrance the width of the body. This is too large for early spring. The wind can blow in too easily, and thus lower the temperature.

For an average-sized colony, an entrance three-eighths by three or four inches will be right. For weak colonies, the opening need be only so large that the bees can pass.

For reducing the size of entrance temporarily, I use a contractor. Its mode of construction will be understood from the following description and the accompanying photograph: take a piece of board one inch thick, from one and a half to two inches high, and of a length to go between the bars of the bottom-board, on which the hive rests. This is then notched out so the top and bottom of it will give a three-inch and a seven-inch entrance, respectively. One side of it is also notched so the opening will be about three-eighths inch high and one-half inch long. This small opening is, as has already been said, to be used for weak colonies. The seven-inch size should be used later on, when the colonies have become stronger, say about the time of fruit bloom. The "contractors" will not check and warp so, and last longer, too, if they are painted. If they are put on the same day hives are set from the cellar, as is proper, the beekeeper must remove them to rake out the dead bees on the bottom-boards the first warm day that comes.

Strong colonies, and with large entrances, the bees will carry out their dead sisters, without it being necessary to aid them. But, with a contracted entrance, it must be difficult for them to do it. I conclude this because the dead bees will often be found piled in heaps behind the contractors in about two weeks after the hives have been set from the cellar, providing, of course, they have not been scraped out before.

Wisconsin.

F. A. STROHSCHNEIN.

POULTRY

Turkeys in the Laying Season.

If ever there was a nest stealer, it is the turkey hen. Given the opportunity she will traverse long distances and resort to flight in the endeavor to make her selection secret and cover up her traces, and some of them retain enough of the instinct of their wild progenitors to approach their nest from different directions. Those turkey breeders who are out and about in the early morning—as they and their birds should be—must keep the turkey hens under observation, because without surveillance at this period their chosen nesting place may be difficult of discovery. If they are allowed full liberty, and they scarcely thrive without, their choice frequently falls upon some remote and wooded situation, but the appearance of watching is to be avoided.

It is worth while to endeavor to induce them to lay at home by the provision of suitable nests, but rather than attempt any irritating confinement or interference at the breeding season, the walk to a distant nest for the purpose of egg collecting should be cheerfully undertaken. The eggs should be collected as soon as possible after laying, leaving china eggs in their place; and the nest should be left untouched until the hen shows an inclination to sit. This should be prevented if a second batch of eggs is desired without delay, the eggs being set under ordinary hens. During the breeding season turkeys require feeding up to the egg-producing condition, but not beyond it; consequently nitrogenous constituents are essential, but fat-forming material must be avoided, as also must anything of a too-stimulating character.

Preserving Eggs with Lard.

Lard is the latest material to be recommended as a preservative for eggs. An Italian investigator asserts that lard is not only the most effective, but the cheapest agent for the preservation of eggs that can be found. In his experiments he selected perfectly fresh eggs and covered them with lard, so as to effectually stop up all the pores. The shells were thus rendered impermeable, the exchange of air was prevented and, the obstruction of the pores not permitting the evaporation of the water, there was no loss of weight. The whites and yellows of the eggs retained their color perfectly and the taste was not modified in the slightest degree. When properly coated with lard—not too thickly—the eggs are put in baskets or boxes upon a bed of tow or fine odorless shavings and so arranged that there will be no point of contact between them—otherwise a mold will develop and putrefaction result. The packing room should be perfectly dry, the question of temperature not being important. By this process the experimenter kept a quantity of eggs for a whole year—through a very hot summer and a very cold winter—and they were perfectly preserved. He says that 4 cents worth of lard suffices to coat 100 eggs, and that anyone could easily prepare that number of eggs in one hour's time.

The foregoing article, we referred to Frank T. Shutt, Chemist, Central Experimental Farm, Ottawa, who writes us as follows:

Some years ago, in experimenting with various methods of egg preservation, we tried smearing the eggs with vaseline, gum arabic, dextrin, fats of different kinds, and a number of other organic substances. None of these, however, proved entirely satisfactory, chiefly because of the growth of mold on the egg, which usually ensued. Further, there was a distinct tendency to rancidity of the covering material, when such was of the nature of oil or fat. Both mold and rancidity markedly affected the flavor of the egg. It is perhaps possible to prevent the development of mold by storing the eggs in a well-ventilated dry room (not a cellar), and leaving ample air-way between the eggs, but it does not occur to the writer, how rancidity is to be prevented during our hot summer, under such circumstances.

We recommend lime water as the best method for the householder, and the cold-storage when large quantities of eggs are to be held over.

(Note.—The lime-water method is as follows:

The preservative is prepared by slacking two pounds of quicklime in a small quantity of water, and stirring the milk of lime so formed into enough water to make up five gallons. After keeping well stirred for a few hours allow it to settle, and draw off the liquid above the settlings. Pour the lime water over the eggs, previously placed in a crock or water-tight barrel. Exclude the air by a covering of sweet oil, or by sacking on which a paste of lime is spread. Exposure to the air tends to precipitate or throw down the lime (as carbonate), and thus weakens the solution. If, after a time, there is any noticeable precipitation of lime, the lime water should be drawn or siphoned off, and a quantity of freshly-prepared lime put in. Eggs preserved in this pickle were found by Prof. Shutt quite good for cooking at the end of a year.)

* * *

An American has invented a contrivance that attaches to incubators and brooders, and gives warning as the temperature gets too high or too low. The device gives warning by continuous ringing of a bell whenever the temperature in incubator or brooder goes either too high or too low, thus obviating all danger of cooking or chilling eggs or chicks. It is adjustable to any range of temperature desired, is easily attached by anyone to any make of incubator or brooder, and is a safeguard that relieves the operator from all worry or anxiety.

* * *

Colorado state authorities, in order to check abuses now going on in respect to the shipment of live poultry, and to arrange for more humane transportation, are specifying the kind and size of coop to be used, and the number of chickens each coop shall contain. Failure to comply with the regulations will result in the confiscation of all poultry discovered improperly cooped.

* * *

This is the season of the year when the peculiar value of the mangel as a feed is most apparent. On towards the end of winter when the rough fodder is dried out and seemingly impalatable to the stock the mangel is in the very pink of condition for feeding purposes and supplies to the ration exactly what the season and the animal requires, viz., succulence and palatability. The majority of farmers and feeders in this country have been able to worry along each year without providing a supply of this most useful adjunct in feeding, but those who have been in the habit of growing a few mangels would be puzzled to know what to feed at this season if they did not have it, what they could use in place of the roots to keep their live stock thrifty and eating well at the winter fodder while they waited for the grass to come. Try a few this year and be convinced.

FIELD NOTES

Events of the Week.

CANADIAN.

The Ontario Legislature is dissolved. Elections will be held June 8th.

* * *

Dr. Willoughby, minister without portfolio in the Ontario, cabinet is dead.

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Thirty five seats will be provided by the new redistribution bill in Saskatchewan. Saskatoon will be given a member in the legislature.

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Seventeen people were killed at Notre Dame de la Salette, Quebec, by a land slide, on April 25th.

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One thousand liquor licenses were cancelled in Ontario on May 1st, as a result of the recent local option campaign. Western Ontario is most effected.

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Indian chiefs representing every tribe in British Columbia will go to Ottawa about the end of the month, to call the attention of the government to attempts to rob them of their land.

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The Doukhobours are again in the time-light. The band of them that last year set out from the Yorkton settlement in search of the Messiah, and made themselves notorious by their pilgrimage, wintered in Fort William, as a charge on the civic authorities there, and rather shocked the modesty of respectable citizens by parading the business streets a few times in a nude condition. Finally last week the Fort William council got the fanatics into a C. P. R. coach, attached the car to a westbound express and started the outfit back to the settlement. The Yorkton authorities however refuse to allow the Douks to leave the car and are appealing to the Ottawa and Regina governments to take the matter up. The Douks, it is alleged are insane, and should be confined in asylums. No action has yet been taken in the matter by provincial or Federal authorities.

FOREIGN.

A Japanese training cruiser was wrecked last week with the loss of 160 lives.

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Destructive floods in Hankow China resulted in the loss of more than 3000 lives.

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Two thousand Armenians were massacred by Kurds in thirty six villages in Persian Armenia last week.

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The death list from the tornado that swept the Southern States on April 26th now totals 350.

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Colorado and Arkansas fruit growing districts were visited by frosts during April which are reputed to have done a million dollars damage.

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American lumbermen are rapidly acquiring timber limits and erecting saw mills in B. C. in expectation of Congress next session removing the duty on finished lumber.

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Accidents in the British Navy were unusually numerous last week. A torpedo destroyer was cut in two by a scout boat, a cruiser at anchor in a thick fog was rammed by an American liner and several other mishaps of a more or less serious nature were reported. A number of lives were lost.

Things to Remember.

Shorthorn Sale, G. F. Root & Robt. Page, Red Deer, Alta.....	May 6
Annual Meeting Western Stock Growers' Association, Medicine Hat.....	May 14
Purebred Cattle Show and Sale, Calgary.....	May 19-22
Purebred Cattle Sale, Brandon.....	May 28
Sale Shorthorn Cattle, John Dryden & Son, Brooklyn, Ont.....	June 5
Sale of Clydesdales, Hackney ponies, Galloway and Shorthorn Cattle, Boyd Ranch, Carberry.....	June 10
Winnipeg Horse Show.....	June 11-13
Edmonton Exhibition.....	June 23-26
Dominion Exhibition, Calgary....	June 29 to July 9
Portage la Prairie Exhibition....	July 9, 10, 11
Winnipeg Exhibition.....	July 11 to 17
Brandon Exhibition.....	July 13 to 17
Regina Exhibition.....	July 21 to 24
North Dakota State Fair, Fargo.....	July 21 to 25
Minnesota State Fair, Hamline....	Aug. 31 to Sept 4.

Small Bacon Factories.

EDITOR FARMER'S ADVOCATE:

In certain districts at the present time, farmers and others are agitating for the establishment of bacon factories. Dissatisfied with the marketing-system under which they are required to sell

their hogs, farmers are beginning to enquire whether they may not emancipate the industry by providing facilities and an organization of their own for curing and marketing bacon. Whether as joint stock or as co-operative concerns it is likely a number of factories will be projected sometime in the near future. It is interesting therefore to note what the experience has been in small bacon factories elsewhere.

It is hardly necessary to refer to the experiment made in co-operative pork-packing in Ontario, the only place in the Dominion where it has yet been tried on a reasonably extensive scale, more than to say that the experiment was anything but a success. There were, however, some circumstances that contributed to the failure of every farmers co-operative or rather joint stock pork factory projected in Ontario, and were these eliminated there is no reason why packing plants, cooperatively established should not be as successfully carried on as private enterprise factories. The farmers themselves who enter into an organization of this kind are usually the ones to strike the first blow in the disintegration of the structure they have reared. For the present however, we would like to note some points of importance in connection with small bacon curing factories. What follows is taken in part from a pamphlet published by the British board of Agriculture on the subject. Practically all the remarks are applicable wherever bacon-curing establishments are being considered: hitherto the small bacon factory has frequently not been a success. It suffered often from (1) insufficient capital, (2) a badly chosen position where it had to compete with pork butchers for its supplies of raw material, and (3) the lack of a modern equipment.

The size of the factory should be governed by two considerations—(1) It is very important to secure a good market for offal, and the best market is the local one. Pig offal is a cheap and good article of food, and there is a considerable demand for it. But if more is produced than can be disposed of locally, it must be cured and dispatched to large cities. The large curer has to pay the cost of salting, packing and carriage to the distant market, and generally obtains a much smaller price than can be had for the fresh article sold over the counter locally. (2) The factory should, if possible, provide a market for all suitable pigs raised in its district. As the cost of carriage would be very nominal the small factory would, in this particular, have a considerable advantage over the large factory which generally has to draw its supplies from far and wide. Where these two considerations can be given effect to, we believe they will more than balance the advantage possessed by the large factory in the matter of merit and administration, especially when it is remembered that in connection with co-operative factories some, at least, of the administration is done without remuneration.

A factory to handle over 50 pigs a week can be built and equipped with complete modern plant for about five thousand dollars: one to deal with 100 to 200 pigs weekly would cost under ten thousand dollars. The working capital would depend on the credit given, but it need not amount to a very large sum. It is always easy to find agents to sell good bacon, but if the small factory system should take root, it might no doubt be desirable to have a central wholesale organization to grade and dispose of the produce of all the factories.

One difficulty the small bacon factories might have to face at first—the securing of managers, but the experience of the creameries show that the well-trained competent man, content with moderate remuneration, turns up when he is wanted. Wherever a creamery is successful, a small bacon factory ought to succeed.

The stumbling block to success in every co-operative or farmers joint-stock bacon factory yet projected in Canada, has been the farmers themselves. The case of the Palmerston, Ont. establishment is typical of them all. Palmerston is the center of one of the best hog producing districts in that province. Farmers for years have been feeding hogs for the Toronto packers and yearly smarting with the knowledge that they were not receiving for their stock all that the quality of their hogs and the conditions of the British bacon market seemed to demand. As a means of improving the hog industry locally, farmers in the townships round about, and business men in the town subscribed capital for a slaughtering and packing establishment. Each farmer subscribed for as much stock as he could

conveniently handle and the business started off one day most auspiciously.

One would have imagined it would have been successful from the start. Farmers were disgusted with the large Toronto packers, were enthusiastic for the new industry, and seemed likely to support the new business most loyally. However, it was not long before buyers from the large factories were in the Palmerston district bidding twenty-five, fifty or a dollar a hundred more for hogs than the local factory was able to offer or conditions in the bacon market warranted them in paying. They went to every farmer in the district, to the many who owned no son tlic the local factory, and to the few who did. Prices went to such a point that the new factory was losing a dollar or two on every hog it handled. The result was inevitable. A farmer who had ten dollars invested in stock in the local factory found that he could get his investment back with good interest, in the profit accruing to him on one batch of hogs sold just then to the Toronto packers. He took the bait so daintily offered never realizing that what he was doing was being done by every other shareholder in the district. The factory failed because its owners failed to patronize it. It is needless to say that just as soon as the factory got out of business hogs went back again to their former level, and farmers went back to their former writings.

There is no real reason why farmers' packing factories in this Western country, in Ontario, in great Britain or anywhere else should not be successful if the principles that underly co-operation in the manufacture and sale of products, are kept in mind. Their principles have been fairly well established in foreign co-operative experience, particularly Danish experience in the sale of farm products. "All for each and each for all," is the basis of true co-operation and in order that every member going into a co-operative organization shall steadfastly adhere to the last part of this fundamental principle, as zealously as he expects every other member of the association to stand by the first, it is necessary that something be provided to hold shareholders from sheering off and deserting their association every time a competing company offers a slightly better price for the commodity he has to sell than his own factory is able to offer. The Danes encountered this trouble early in their cooperative experience and were not long in discovering the luring power of the dollar in their competitors hands, of learning how easily an established competition could break up a newly organized association, simply by advancing prices to the producers. They solved the problem however, in an original and highly satisfactory manner. Instead of each member of the association subscribing capital to equip the plant and carry on the business, each member gave guarantee of proportionate unlimited security for loan of capital and a further guarantee that he would sell his raw material, hog, milk, poultry or what not, only to the association factory for a certain stated period of time, usually five years. Permanent and working capital would then be borrowed to carry on the business and on account of the excellent security offered loans could be made on very favorable terms. Farmers in Danish co-operative organizations, it will be noticed, are not required to put in a single dollar of capital themselves, but they collectively stand security for what is required in the business and further ensure the existence of the enterprise by binding themselves under penalty to support it with all they produce of the commodity which the factory handles. In addition a certain sum is laid aside each year as a reserve fund which in twenty years pays off the loan.

This is the secret of Danish success in co-operation in the bacon industry. It is because this principle of compelling members' support to the associations' undertakings has not been made a part of the so-called co-operative ventures made in this country, that those ventures, in the main, have been unsuccessful and come to naught. Had the particular packing factory referred to above been the property of a co-operative organization, laid down on Danish co-operative principles, had every member of it been required to give a guarantee to sell it every hog he raised, and a guarantee to pay his share of the liability if it failed, that factory, and others like it projected in Ontario at that time, would be among the most successful bacon factories in Canada today. There are men who cry that co-operative bacon curing is not a feasible proposition, that all experience in this country or on this continent has shown the principle to be impracticable. All this is non-

sence. Co-operation in the bacon business has never been tried yet. We have had a number of farmers' joint-stock companies, insufficiently capitalized to buck the private packers combine with several millions invested and almost unlimited resources. Naturally they failed. There was nothing else for them to do. In the same way a score or so of small factories have gone to the wall in the same time and from the same cause. But we never heard of them. We deplore the failure of co-operation in the bacon-curing business and say it cannot be done. It can be done and the farmers can do it themselves. In subsequent articles the theory of co-operation will be discussed, the principles of true co-operative organization laid down and the system outlined by which success can be attained by co-operative selling and manufacturing by producers.

H. OSCAR SHELDON.

The Late Richard Waugh.

The grave has just closed over one who has been prominent in the agricultural fraternity of Western Canada for a quarter of a century. On the 25th ultimo, Richard Waugh died, at the age of seventy-eight. His death was singularly in keeping with the methods of his life. Always a man of energy and activities he continued so until a few days before his death, when heart failure closed a career of exceptional usefulness. Mr. Waugh did not attain his prominence in the agricultural life of the country as a practical farmer but as a descriptive and discursive writer upon farming methods as he found them and as he conceived they should be followed.

Coming to Manitoba as a builder and unfamiliar with farming practices, the profession attracted him as a study and in familiarizing himself with the subject he imparted to others the benefits of his own observations. For many years he was editor of the 'Nor' West Farmer retiring in 1904 to engage in immigration work for a year in Scotland. After his return to Canada he had been closely identified with agricultural thought and practice through conducting a special department of the weekly Free Press. Naturally the doctrines of one who has been actively engaged in agricultural journalism since its inception in Western Canada will be familiar in every community and whether or not they are accepted in their entirety the mental stimulus everywhere awakened by Richard Waugh's written or spoken word cannot fail to have raised the science of agriculture in the scale of human endeavours.

The late Mr. Waugh was born at St. Boswells, Scotland, and came to Winnipeg in 1882. In religion he was a staunch Congregationalist and in his movements throughout the country, in pursuit of his chosen vocation of journalism, he was always ready to discuss the philosophies of life and to expound passages of Holy Writ. To few it is given to lead a life so full of usefulness and to end it with such a bountiful measure of peace.

Feeding Steers on the Brandon Experimental Farm. Outside versus Inside.

The feeding of cattle outside for the production of beef has been receiving considerable attention of late at the hands of Manitoba cattlemen. The strongest advocates of this method of producing beef are men who have been successfully practising it for a number of years and those who have seen it in operation. The conditions of outdoor feeding are so radically different from those that have been generally considered essential, that the majority of cattlemen were sceptical about it, while many others look upon the practice as ludicrous, and aver that it must involve a wanton waste of food.

Last fall some work was started to get definite information on the comparative economy of making beef in a comfortable stable and in the open with comparatively little shelter. The first lot of steers, thirteen head, has just been marketed and the results are available.

Thirteen steers were purchased late in November and divided into two groups as nearly alike as possible in size and quality, eight being dehorned and put outside and five (as many as we had accommodation for) tied in the stable. The steers were domestic purchased in the neighborhood of Oak River, and cost 3½c., shrunk. The inside group were started on December 3rd, on a standard ration that has given good results here for a number of years for beef production. This consisted of silage, straw, hay, a few roots and grain. The grain ration at the start consisted of 2 lbs., of a mixture of oats, barley, and feed wheat and 2 lbs., of bran per steer. This was increased from time to time until by the 1st of April each steer was receiving daily 10 lbs., of grain and 2 lbs., of bran. The steers were not out of the stable after being tied up until they were sold.

The eight steers outside had a range of about 100 acres of rough rolling land some of which was well sheltered with scrub. Water was available in one of the coulees, the ice being cut every day. No shelter by way of sheds was provided. Grain was fed in a trough about 3 feet wide and high enough off the ground to prevent the steers getting in it. Straw was also kept before them in an enclosure of stakes that

would hold about a load, arranged so that the straw could not be wasted by tramping over it. On December 3rd they were started on a ration consisting of 2 lbs., of mixed grain and 2 lbs., of bran, this being increased from time to time so that by April 1st each steer was getting 9 lbs., of grain and 2 lbs., of bran. For about six weeks rough hay was fed instead of straw. This is charged for at the rate of \$2.00 per ton which is its full value.

Both lots of steers were sold on April 22nd for \$4.25 per hundred with 4% shrinkage. Following is a statement of the transaction:—

	Outside	Inside
No., of steers in lot	8	5
First weight gross	8854 lbs.	5695 lbs.
average	1106 "	1139 "
Finished weight gross	10630 "	6950 "
average	1328 "	1390 "
Total gain in 138 days	1776 "	1255 "
Average gain per steer	234 "	251 "
Daily gain per steer	1.6 "	1.81 "
Daily gain per lot	12.8 "	9.05 "
Gross cost of feed, \$100.76		\$ 77.95
Cost of 100 lbs. gain, 5.67		6.20
Cost of steers 8848 lbs.		
lbs. @ 3½c.	276.50	5695 lbs @ 31½c 177.97
Total cost to produce		
beef	377.26	255.92
Sold 14135 lbs. @ 4½c		
less 4%	433.71	6950 lbs. @ 4½c
		less 4% 283.56
Profit on lot	56.45	27.64
Net profit per steer	7.05	5.52
Average buying price		
per steer	34.56	35.59
Average selling price		
per steer	54.21	56.71
Average increase in		
value	19.65	21.12
Average cost of feed		
per steer	12.59	15.59
Amount of meal eaten		
by lot of steers	8892 lbs.	5390 lbs.
Amount of straw	8 tons	5680 lbs.
Amount of hay	6 "	2840 lbs.
Amount of millet	1 ton	Amount of en-
		silage and
		roots 25850 lbs.
Amount of corn fodder 1 ton		
52		

INVESTMENT AND LABOR.

The net profit as shown here, \$5.52 on those fed inside, and \$7.05 on those fed outside makes no allowance for interest on investment or labor involved in tending the cattle. For the outside lot the only investment was the price of the steers and the value of lumber for troughing, a total of \$286.00. The labor incident to attending this lot, including the drawing of straw, feeding grain and cutting ice, would at the outside not amount to more than the time of one man for one hour per day. The extra expense in attending 50 head would have been not more than the time required to draw the additional straw,—a small item.

In feeding inside the investment is necessarily very much greater no matter how economically the building be done. Provided a building suitable for stabling 30 steers could be erected for \$1000 an additional gross profit of \$2.00 per head would be required to meet interest on the investment. The labor required to attend to the cattle fed inside was fully four times as much as that required when the feeding was done outside.

The point has been raised on discussions on this subject that a large part of the food consumed by the cattle fed outside must be utilized to keep up the animal heat, and that since those fed in a comfortable stable do not have the same waste of heat to provide for in the food consumed, they should on that account lay on fat more economically. It must be borne in mind, however, that cattle that are not stabled grow a coat of hair more resembling in its density that of a beaver than a steer, and that this provision aids greatly in conserving the animal heat. During the coldest weather that we had this winter, when for a week the temperature averaged 29 below zero, the steers did not seem to suffer in the least, and were not standing around the straw pile with humped backs as one might imagine.

The cattle were always ready for their feed and none of them went off feed during the winter. The abundance of fresh air has no doubt a salutary effect in keeping the digestive system in tone.

The work carried on this winter is intended as introductory to more extensive trials. Experience in the sort above outlined must be continued for a number of years, when different kinds of seasons are encountered before the results can be considered of any great value.

The past winter's results may be taken as representing what may be expected in an unusually mild winter free from severe storms or prolonged cold spells.

How these results will compare with what may be obtained in a more severe winter remains still to be seen.

JAME MURRAY, Superintendent.

Alberta Cattle in Chicago.

On the same day as Superintendent Murray's report of the foregoing feeding test reached us, we received a report from Chicago of the sale of some

twenty cars of hay-fed Alberta steers and cows there, and while comparisons are odious we want to make comment or two on American cattle prices in comparison to our own. The Alberta cattle marketed in Chicago are described as hay-fed steers. They were in very nice condition and of generally good quality. About 8 loads averaging 1,313 pounds, sold at \$6.20, four loads a bit lighter went at \$6.15, a few single loads at \$5.50 to \$5.90, and some lots of cows at \$5.20. Undoubtedly these prices will look attractive to the Canadian cattle men. They indicate a most substantial advance over last fall's prices, and are a further evidence of encouraging outlook for the market on western cattle this summer.

No.	Av. Wt.	Price.
153	1,313..	\$6.20
78	1,334..	6.15
19	1,248..	5.90
11 tailings	1,199..	5.45
20 tailings	1,164..	5.40
12 cows	1,083..	5.20
9 cows	1,164..	5.15
1 bull	1,640..	4.00

Such prices as these certainly are attractive to cattlemen who have been accustomed to studying market quotations generally little better than one-half the above figures for the same grades of stock. The steers which Mr. Murray fed and sold at \$4.25 per cwt were, from their weights, evidently steers that would have sold on the other side of the line for at least as much as these Alberta hay-fed did, and would have brought on that market something like \$80.00 per head, on the lot fed outside after allowing for a reasonable shrinkage enroute. As it was these cattle brought \$54.21 cents each after being docked four pounds per hundred shrinkage. At these prices instead of a measly net profit of \$7.05 per steer, something like \$32.00 per head would have been realized.

In Mr Murray's feeding work the cost of putting a pound of gain on each steer, (we are referring always to the lot fed outside,) was \$5.67. As a general rule what a steer gains in winter feeding is made at a greater cost per lb than the animal sells for; extra weight is put on at a loss, the feeders profit being made from increasing the value per pound of the weight he started with. It would seem, however, that if gains can be made by this system of feeding for \$56.71 per cwt, there ought to be a pretty good return in this business for the American farmer just across the lines, feeding after the same method, making his gains at the same cost, and selling the finished steers in Chicago at \$1.95 cents per hundred more than Winnipeg prices, selling for \$6.20 meat that cost \$5.67 to produce, making in addition a proportionate profit on the value of the weight he started with.

Experience has shown that it costs just about \$18.00 per head to ship steers from Alberta to Chicago to stand freight charges, shrinkage and the impost at the border. At the time these steers were sold cattle were of the same grade worth here \$4.25 per cwt. After paying all charges there was a profit to the producer of about \$7.00 per head from selling in the Chicago market. This difference is on the higher priced steers alone. On stock of lower grades, cows and heifers, the difference would be even more marked. Chicago dealers anticipate large increase in Canadian cattle receipts this season over last, and from the tone of the Winnipeg market for the last few weeks not much effort is going to be put forth by buyers here to prevent the stock going over the line.

MARKETS

Wheat has been bullish all week with prices strong and on the whole higher. In the face of conditions that would send values down any other year, wheat continues to advance and does not yet seem to have reached its limit. During the week just closed seeding operations have been carried right up to the northern wheat line. The acreage reported for the cereal in the Canadian West at least, is substantially increased. In the United States the area sown to spring wheat will be approximately the same as last year. The copious rains all through the Southwest and Central States, seems to assure that fall wheat will not suffer from lack of moisture, and for the present, danger of drought damaging the winter crop is very remote. In the North, in the spring wheat country, an equally favorable condition of affairs prevails. While cool weather all week was unfavorable to growth. Good rains or snow fell over the entire spring wheat belts, adding needed moisture to the soil in a good many districts when the land was almost too dry for the seed germinating. Wheat seeding is at least three weeks ahead of last year, and everything so far, is indicative of good harvest returns.

In the face, therefore of advance seeding, and weather conditions calculated to have a bearish influence on markets, wheat rounded off the week in a stronger condition than it has been in for some time. The market gathered its strength from unusually light deliveries at primary centers, and a slight falling off in the volume going forward for export account. The decline in shipments, both from this continent and South America, seems to have reflected itself more strongly in Canadian and American markets than in European. Liverpool cables for the week were on the average lower, but Chicago and Minne-

apolis only reflected the decline temporarily, generally closing each day slightly stronger, despite foreign breaks. Winnipeg has shown more strength lately than any wheat center on the continent. Once or twice last week our quotations were such as to place wheat completely out of line for export, and at the same time a fair demand was evident for grain.

Rumors of a corner in Minneapolis and Chicago been current all week. It is held that manipulation has been going on openly in the Minneapolis pit for some time. On Wednesday an important milling company in that city posted notices in the chamber of Commerce announcing that on all contract wheat for May or July delivery, they would accept No. 2 Northern wheat, at fair and equitable price differences instead of No. 1 Northern contract grade. Something of a sensation was caused by this announcement, and almost immediately eight other milling companies followed suit. The millers' contention is that while there is wheat enough, No. 1 Northern is so small in quantity that one large firm might control it and run prices up to a point that would necessitate the mills closing down because flour prices would be sent to such a level that it would be impossible to sell.

Prices current in Winnipeg are as follows:

1 hard	112
1 northern	111
2 northern	108
3 northern	102
No. 4	95½
No. 5	85½
No. 6	74½
Feed 1	58½
Feed 2	52½
Oats—	
No. 2 white	44
No. 3 white	41
Rejected	38
Barley—	
No 3	50
No 4	49

OPTION QUOTATIONS.

	July	Oct
Wheat	113	88½
Oats—		
No. 2 white	46½	40
No. 3 white	41	43½
Rejected	38½	40½
Flax		

PRODUCE AND MILL FEED.

Bran, per ton	\$20.00
Shorts	22.00
Barley and oats	26.00
Barley	25.00
Oats	27.00
Oat meal mill feed	19.00

HAY AND STRAW.

Timothy on the track in carload lot	\$12.00—\$14.00
Prairie hay	6.00—7.50
In loads	7.00—8.00
Baled straw in carloads	5.00

BUTTER AND EGGS.

Fresh made Creamery	31c to 32c
" " " in boxes, 56 lbs.	28c to 28c
" " " " " 14 lbs.	27c
Dairy butter in prints	22c to 24c
" " " intubs	18c to 22c
Manitoba Cheese	14½c
Eastern Cheese	15½c
Eggs, Manitoba fresh	15c

VEGETABLES.

Potatoes, in car lots, per bushel	45c to 50c
Turnips, carlots, per bushel	65c to 70c
Parsnips	\$1.50 to \$1.75
Carrots	\$1.50 to \$1.75

WINNIPEG LIVE STOCK.

Business at the stockyards is increasing with the opening up of the season, though as yet deliveries are rather slow. A few good winter fed cattle are coming forward, though the great proportion of the so-called stall fed stuff never gets into anything better than the butcher class. A few sheep and lambs are being sent in, and fairly good hog deliveries being made. For export steers \$4.75 catches most of the offerings. Higher than this is being paid for well selected and well finished bunches. Hogs advanced a quarter over last weeks quotations. Prices for good bacon hogs has been \$5.75 or better. There is a good demand. Sheep lambs and yearlings are unchanged.

Export steers, \$4.75 to \$4.80; steers, 1000 lbs to 1200, \$4.50; heifers, \$4.25; cows, \$3.00 to \$4.00; butchers mixed stuff, \$2.50 to \$3.50; sheep, \$4.00; lambs, \$4.50 to \$5.50; yearlings choice \$7.00; hogs, \$5.75 to \$5.85.

TORONTO.

Export steers, \$5.50 to \$5.85; bulls, \$4.25 to \$5.00 choice butchers, \$5.50 to \$5.75; medium, \$4.80 to \$5.10; cows, \$3.65 to \$4.75; feeders, \$5.50, calves, \$4.00 to \$5.00; sheep, \$5.00 to \$5.25; yearling, \$6.00 to \$7.50; spring lambs \$3.50 to \$7.00 each; select bacon hogs \$6.40.

CHICAGO.

Native beef cattle, \$4.65 to \$7.25; cows, \$3.35 to \$6.00; heifers, \$3.00 to \$6.15; bulls, 2.75 to \$5.60; canners and cutters, \$1.50 to \$3.25; calves \$2.85 to \$5.35; stockers and feeders, \$2.90 to \$5.75. Sheep, shorn native yearlings, \$5.75 to \$6.25; wethers, \$5.00 to 6.00; ewes, \$3.00 to \$5.25; western wethers \$4.25 to 5.95; Colorado wethers, \$6.75 to 7.00. Hogs, mixed packing, \$5.10 to \$5.65; heavy packing, \$5.05 to \$5.60; light, \$5.05 to \$5.60.

HOME JOURNAL

Life, Literature and Education

IN THE WORLD OF LITERATURE AND ART.

The Normal School at Montreal has been moved to Ste. Anne de Bellevue, in order that the teachers-in-training may receive practical instruction in gardening and nature study.

* * *

G. S. Fife, of Queen's, has been awarded the Rhodes scholarship. Fife comes from Edmonton, where his father is a high school teacher. He will leave in the fall for Oxford.

* * *

The Norwegian admirers of Kathleen Parlow, violinist, of Calgary, have subscribed 4,000 marks (nearly \$1,000) to present her with a Guarnerius violin.

* * *

There is at present in one of the work houses an ex-member of the Royal Scottish Academy, who has been reduced to poverty through drink. Before his admission to the workhouse he had made a miserable living by selling paintings of local scenes on cardboard. On admission to the 'house' he was relieved from manual labor, and having been given painter's materials, set to work on several landscapes, which now adorn the walls of the workhouse hospital.

* * *

James Souter, the original of Ian Maclaren's character of Jamie Soutar, the cynic, in "The Bonnie Briar Bush," is dead at Santa Monica. He was eighty years old. Soutar was born in the Scottish parish around which the story was written. Soon after his marriage he came to this country on a visit and was so pleased that he remained.

* * *

A Toronto girl, Miss Elsie Scott, carried off the typewriting championship of America for schools, at the contest held in Philadelphia. She was pitted against a large number of contestants from the United States. All were eligible who had begun typewriting since January 1, 1907. Miss Scott's record was forty-eight words a minute net for a fifty minute test. Five words were deducted for each mistake.

* * *

Considerable interest has been aroused in Montreal educational circles by the fact that a Chinaman, Peter Hing, has succeeded in winning a position as prize man in the second year law course at McGill. Mr. Hing is the son of a Chinese missionary in British Columbia and has been very successful at McGill, running close for prize honors last year. He is a very bright young fellow, quite Canadianized in his habits, and is popular in both literary and athletic circles at the University.

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V. Kejuin Wellington Koo, of Shanghai, China, son of the Chinese Secretary of Foreign Affairs, was elected editor in chief of the Columbia Spectator, the University daily paper all next year. Koo for two years has been a member of the Varsity debating team and was instrumental in defeating the Cornell team recently. He is a member of the senior society of "Nacoms," the most exclusive organization on the Morning-side campus. He has accomplished sufficient academic work to graduate this year, but intends to return and graduate with his class.

* * *

The western students winning degrees at Queen's university are: Degree of B. A., M. R. Bow, Regina; T. E. Fear, Brandon; F. C. Kennedy, Winnipeg; Edna Millar, Calgary; H. R. Parker, Calgary; S. D. Skeene, Grand Coulee, Sask.; Eleanor Simpson, Regina; Anna Weaver, Buchanan, Sask., Degree of B.Sc.: Civil

engineering, A. Cummings, Fernie; A. Findlay, Winnipeg; electrical engineering, J. Stott, Sapperton, B.C. Medical degrees of M. D. and C. M., J. P. A. Clancy, Lumsden, Sask.; H. A. Connelly, B.A., Vancouver, B. C.; N. A. L. Connelly, Vancouver, B. C.; M. C. Costello, Calgary; A. MacDonald, Regina, Sask.; F. B. McIntosh, Edmonton, Alta.; J. E. R. Randholm, New Amsterdam, B. C.; T. R. Ross, Abernethy, Sask.

* * *

By the appointment of Dr. Joseph Cox Bridge as professor of music at Dublin University, the curious record of two brothers holding such appointments is created, his brother being Sir Frederick Bridge, Westminster Abbey organist and professor of music at London University. Dr. Bridge who is Mus. Doc. of Oxford, was elected organist of Chester Cathedral in 1877. He is popularly known as "Chester Bridge," and his distinguished elder brother as "Westminster Bridge."

* * *

Dr. P. P. Waldenstrom, the well-known evangelist and lecturer, also known in America in connection with the Yale Jubilee, has presented to King Gustav a petition bearing 314,000 signatures, asking the government to sanction religious study in all the schools of Sweden. The petitioners hold that character is the basis of all achievement, and that the nation cannot have character unless sound ethics are systematically taught in the public schools.

CANNOT AFFORD TO DESTROY BIRDS.

Bird life in our country is destroyed for three reasons: as a matter of sport, to provide an adornment for women, and to rid the land of marauders and robbers of fruit and grain. The first and third are mistaken ideas, and the second is a cruel barbarism.

The utility of bird life to mankind more than counter-balances any harm done by the feathered tribes. The cherries eaten and the seeds picked are meagre pay for the work done, and if the birds ever went on strike like other poorly paid bodies we should realize just how much we owed to them. One of the tales of the Wayside Inn is called "The Birds of Killingworth," and in it Longfellow describes the result to a town when the inhabitants destroyed all the birds. Only the young Preceptor had the courage to protest: "You call them thieves and pillagers; but know they are the winged wardens of your farms, Who from the cornfields drive the insidious foe, And from your harvests keep a hundred harms, Even the blackest of them all, the crow, Renders good service as your man-at-arms, Crushing the beetle in his coat of mail, And crying havoc on the slug and snail."

But the townspeople refused to listen and the work of destruction began. When all the birds were gone retribution descended speedily. "In the orchards fed myriads of caterpillars, and around

The cultivated fields and garden beds Hosts of devouring insects crawled, and found No foe to check their march, till they had made The land a desert without leaf or shade. Devoured by worms, like Herod, was the town Because, like Herod, it had ruthlessly Slaughtered the Innocents."

The next spring birds in great numbers were imported and set free in the woods, and a new heaven bent over a new earth amid the sunny farms of Killingworth.

Birds eat fruit, when they can get it, and grain, when it is handy, but these two do not form their staple diet any more than oysters and quail-on-toast form ours. What bread and meat are to us, insects and mice are to them, and there are very few instances when the evil they do preponderates over the good. It is estimated that in the United States the annual

loss of farm crops by insects amounts to \$596,000,000, and the increase can be judged if there were no birds to keep down the numbers of insect pests.

In Illinois, 141 bird-stomachs of 36 different varieties were examined, and found that 72 per cent of them had been eating cankerworms. Seven cedar waxwings had each eaten from 70 to 100 worms; four baby song sparrows devoured seventeen grasshoppers in an hour. A bobwhite that was killed had eaten a hundred potato bugs, and another had five hundred chinch bugs to its account. A tiny ruby-throated humming-bird had gorged itself with four locusts. It must have been a hungry school-boy of a bird. Six robins made a record of 265 locusts and a single rubythroated kinglet had disposed of twenty-nine. Swallows are particularly fond of flies and gnats; the flicker and highhole prefer ants, and the meadowlark is cosmopolitan in his taste for any old kind of insect, even to seventy-five per cent of his diet, twelve per cent of the remainder being weed seeds. The hawks and owls keep up a day and night warfare on grasshoppers, crickets, mice, mosquitoes, gophers, and even squirrels. Professor Harvey found 500 mosquitoes in the stomach of a night hawk, a piece of work for which we of western Canada would owe that bird hearty thanks.

The presence of birds on a farm, then, is manifestly not a disadvantage. To find them there is to discover a natural resource, and to encourage their occupation of one's property is a good investment.

THE EDUCATION OF THE FARMER'S BOY.

The discussion of practical subjects marked the third annual meeting of the Manitoba Educational Association which convened in Winnipeg, on April 20, 21, and 22, of this year. Among other questions brought before the convention, were "The Act of Letter Writing," "School Equipment," "Municipal School Boards," "Schools and the Public Health," and "Industrial Education."

The last named was dealt with by Principal Black of the Agricultural College. In his opinion the young farmer requires a knowledge of the English language, of history, mathematics and geography. That forms the necessary foundation. Upon it must be built, if the boy is to develop into a successful man, a practical industrial education to enable him to make the best of what nature and human skill are doing for him. He needs, first, to have a scientific knowledge of the soil, of its elements, and of the effect upon these elements of moisture, heat, cultivation and fertilization. That means he must have made his own the first principles of physics and chemistry.

To these two natural sciences he will add something of botany and the laws of plant development, so that his crops may be suited to the soil and climate prevailing in his locality, and perfected through careful selection and breeding. In this connection he will study the weed problem, now engaging the attention of Manitoba farmers,—and properly so, for weeds cost more in Manitoba last year, than has been spent in this province for education in the last ten years. His share in the work of destruction of weeds is well begun when he can identify the pests.

If his horses and other stock are to show improvement, a foundation knowledge to which experience will add daily, is a very great thing. His judgment will be free from error in choosing breeds, and in feeding to obtain good results without wastefulness. The farmer who has had instruction in mechanics and engineering will save money every year by knowing how to care properly for his farm machinery when it is in use or when idle. Millions of dollars are spent every year in western Canada in repairing or replacing farm machinery which has been abused through ignorance and carelessness. Some agricultural colleges recognize this need, and are establishing separate departments of farm machinery.

The Quiet Hour

WALKING WITH GOD.

Enoch walked with God.—

Genesis v.: 22.

"I fear not Thy withdrawal; more I fear,

Seeing, to know Thee not—hood-winked with dreams

Of signs and wonders—while, unnoticed, Thou

Walking Thy garden still, commun'st with men,

Missed in the commonplace of Miracle!

"The commonplace of Miracle!" what a true statement that is. We live in such a world of miracles that we grow used to them and forget that God is Working almost visibly through them. Yesterday was the feast of the Annunciation, for I am writing this on the 26th of March, and we were reminded of that unique Birth which has linked God and man in closest bonds of union. Plenty of people now are declaring that they cannot believe in the great miracle of that Virgin-Birth. Do they doubt it because it is so marvellous? Then how can they believe in the great miracle of birth which is giving new men and women to the world continually? We are forced to accept the commonplace miracles of every day, and they are at least as wonderful as the extraordinary miracles described in the Bible. It is not really more marvellous to feed five thousand people with a few loaves and fishes than it is to produce uncouth millions of grains of wheat from one—yet that is quite possible in the course of a few years. It is not really more wonderful to turn water into wine at a feast, than it is to change it into wine slowly by passing it through grapes in the ordinary commonplace of miracle. It is a miracle of miracles to keep the earth and other heavenly bodies swinging continually through space in perfect time and harmony. And the great sun, with its life-giving rays, burning on in undiminished splendor for many thousands of years, is another of the commonplace miracles which we have grown used to. Each of the millions of blades of grass—not to speak of the flowers—which comes out of the hard earth in answer to God's call, is a miracle. The food which we eat, changing mysteriously into skin and bone, flesh and hair and nails—dead material changing into living, thinking men and women—is another commonplace miracle. Every day God lets us see that He has not forgotten us; every day He works miracles for us so that we may remember that He is in us and with us, and may walk consciously with Him as Enoch did. Enoch was lifted out of the sight of men here on the earth thousands of years ago, but down through the ages still rings that wonderful commentary on his life: "Enoch walked with God; and he was not; for God took him." Which of us could wish for a grander tribute to his memory?

There is a story told of a poor shoemaker called Martin, who received in a dream a promise that the Lord Jesus would visit him on the morrow. He lived in a cellar, and could only see the feet of those who passed by. Three or four times during the day he saw shabby boots shuffling wearily past the window, and each time he hurried out to invite the tired wayfarers in for rest and food. All day he watched for the expected Guest, and went to bed sad and disappointed because He had not come. Then in a dream the shabby men and women and children he had cheered and helped came one by one, looked earnestly at him, and said: "Martin, dost thou not know Me." Then he saw that each one had the face of his loved Master, and he knew that the King had really visited him in his poor little home many times that day. This is not a parable, it is a glorious fact. Christ, God in man, will surely visit each of us to-day and to-morrow and every day. We, like Enoch, may walk with Him every hour. If it thrills us with solemn gladness, as Miss Havergal says, to know that we shall really see Him face to face when we have passed through

the gate of death, surely the thought of His Presence, now and here, has power to thrill us with solemn gladness too. He is close beside you now, stop a moment to drink in that inspiring thought. Close beside you, ready to give all the help and cheer you need, loving you always, though you may be weak and cowardly and may trust Him very little. Will you not slip your hand in his, with the trustful confidence of a happy child, and say: "Dear Lord, I joyously accept Thy ordering of my life, give me what Thou wilt."

One whose eyes are open to the invisible, who sees with true spiritual sight the angels and the angels' Lord beside him, can go on his way with high courage and perfect peace, sure that all is well. The promise is fulfilled to him: "Thou shalt not be afraid for any terror by night," for he can see God at least as well in the dark as in the daylight. No difficulties or dangers can alarm him, for he knows that all things are working together for his real good. He is not afraid of anything, for he knows that the servants of God have the sure promise that no weapon formed against them shall prosper. The plots against Joseph seemed to prosper for a short time, but they only resulted in making his character strong and beautiful, and—as soon as he could bear worldly honor—they led straight to it. It was the same with Daniel, the plots of his enemies led swiftly to fame and promotion.

Faith is often spoken of as "the eye of the soul," for it is by faith that we see things invisible—it is "the evidence of things not seen." Without that sense of spiritual sight we should become materialists, and miss the beauty of the spiritual world within us and without us. Faith and superstition are not really alike, although some people may confuse the two. Faith opens the door into a world of joy and beauty—a world that is really there—while superstition tries to mislead us by showing shadowy pictures which have no reality. The one is like showing a traveller in a desert a spring of living water; the other is like a mirage, a mockery, wavering and unreal. Superstition weakens the courage, while faith strengthens it. One who thinks that misfortunes will follow the breaking of a mirror, the spilling of salt, the walking beneath a ladder, or the many other occurrences which are supposed to bring bad luck, is dishonoring God; for he evidently thinks God has no power to control His own world. There is a good deal of heathenism still lingering in Christian countries; many people still cherish superstition, many still treasure charms. But if we walk consciously with God we know that "the earth is the Lord's" as well as the heavens, and we feel safe in His hands. No blind goddess of fortune can control our fate. It is not only foolish, it is really very wrong to trust in charms instead of in the living God who rules in heaven and earth. And one who walks with God can never be afraid of the revelations of Science. God made the universe, and therefore, the more we can find out about it, the more we shall know of Him. One who refuses to examine scientific discoveries, for fear they might contradict revealed truths shows very little faith in the truths. He is evidently afraid to test them. Truth should never be afraid of standing in the light of any age to be tested and examined. Only, in talking about science, it is well to be cautious and not over-credulous. Theories are often put before the world as facts only to be flatly contradicted by scientists of future years. When clever people are foolish enough to say that they don't believe in a soul, because no one has ever discovered one when examining a human body, we know they are talking nonsense. They would be the first to deny the statement if someone else said: "I have seen a human soul." You might just as well say: "I have seen love." We know that love is invisible, but surely no one is so foolish and desolate as to deny its exist-

ence on that account. We know that if anyone said he had seen a soul he would not be telling the truth—though both love and a human soul can manifest their presence in very tangible form. So we are told that no man hath seen God at any time, and if a man should say, "I looked into heaven through a strong telescope and saw God," no sane person would believe him. Last Sunday a clergyman asked the children in Sunday-school: "Where is heaven?" The answer given by one child was the best possible one: "Heaven is where God is." If God is in heaven, and heaven is always where God is, we have every opportunity of living in heaven every day of our lives. God keeps out of sight, but He makes His presence felt so the pure-hearted souls that are earnestly reaching out after Him. He does not leave them long in doubt. Go where you will, and you will find Him, if you look in the right way. And there are countless men and women in the world who know that He is with them. I don't mean the people who hope the wonderful story of God's love is true, but those who know it by their own personal experience. They may have an occasional cloud of doubt to trouble them, but, as Bishop Blougram says, such doubts are only "dreams" and "faith is my waking life." There is all the difference in the world between "a life of doubt diversified by faith," and one "of faith diversified by doubt."

"I absolutely and peremptorily Believe!—I say faith is my waking life. One sleeps, indeed, and dreams at intervals, We know, but waking's the main point with us, And my provision's for life's waking part."

Perhaps you may say that you never have these clouds, these "dreams" of doubt. Is your faith, then, so perfect? Do you never worry about possible difficulties in your path, do you never chafe and fret against God's ordering of your life, do you never get anxious if you hear no word from absent loved ones? All these things prove that our faith is not yet perfect; we still often long to order our own lives, at least in little things. We still often tell God that we know better than He does what is good for us.

"With me, faith means perpetual unbelief, Kept quiet like the snake 'neath Michael's foot, Who stands calm just because he feels it writhe."

You own your instincts—why what else do I, Who want, am made for, and must have a God Ere I can be aught, do aught?—no mere name Want, but the true thing with what proves its truth, To wit, a relation from that thing to me, Touching from head to foot—which touch I feel, And with it take the rest, this life of ours!"

Very few walk with God always. They often forget His presence, often doubt His providence, are often weak in temptation because they rely on their own strength; and yet they reach out with a real heart-hunger for that Infinite Love which is always more ready to hear than we to speak. Perhaps the last waking thought at night is the sweet peace of resting on that Heart of Love, without a care for the future—like the late Bishop of Washington, who lately fell asleep murmuring the great "Holy, Holy, Holy." Perhaps our first waking thought may be the joy of serving the Master of the World. But what of the hours when we are immersed in the work or pleasure of the day, do we always walk with God, joyously and bravely? Do we not often forget His very existence, and act or speak or think as though we had no Father, no wise and loving Elder Brother to lean on and to obey?

Let us pray more and more earnestly that our eyes may be opened ever wider to see Him who is invisible. Let us walk in heaven now, with God and His good angels close beside us.

"Seldom do we think upon them, seldom we believe them nigh, Like the child who deems in sunshine that the stars have left the sky; So, by this world's pleasures dazzled, scarce we feel their presence true; In foolishness and fickleness, are we not children too?"

God's angels still are near us, with their words of hope and cheer, When the foe of our salvation and his armed hosts draw near; But a Greater One is with us, and we shrink not from the strife, While the Lord of angels leads us on—the battlefield of life."

HOPE.

ENGLAND'S HILLS ARE STEEP.

England's cliffs are white like milk, But England's fields are green; The grey fogs creep across the moors, But warm suns stand between, And not so far from London Town, beyond the brimming street A thousand little summer winds are singing in the wheat.

Red-lipped poppies stand and burn. The hedges are aglow; The daisies climb the windy hills Till all grow white like snow. And when the slim pale moon slides up and dreamy night is near, There's a whisper in the beeches for lonely hearts to hear.

Weary, we have wandered back— And we have travelled far— Above the storms and over seas Gleamed ever one bright star— O, England, when our hearts grow cold and will no longer roam, We see beyond your milk-white cliffs the round green fields of home. —Lloyd Roberts, in The Craftsman.

MONA MACHREE.

Mona Machree, I'm the wanderin' creature now, Over the sea; Slave of no lass, but a lover of Nature now,

Careless an' free. Nature, the goddess of myriad graces, Pours for lorn lovers a balm that effaces Scars from the heart, in these smilin' new places

Far to the eastward an' far to the south of you.

Sweet are the grapes that she gives me to eat, Red are her pomegranates, luscious an' sweet,

Dreamy the breath of her flowers in the heat—

But oh, the red mouth of you, Mona Machree!

Mona Machree, though it's here that the money is,

Pather for me, Dreams an' drowsed rovin's through blooms where the honey is,

Wild as a bee, She, the new goddess to whom I'm beholden.

Snares me in days that are scented an' golden

E'en as the tresses your temples enfoldin'.

Aye! an' the blue, when the sun has forsaken it.

Blossoms with jewels, night lamps of her throne,

Bright as two passionless eyes I have known.

Ah! it is here that my heart is my own—

But oh, the dull ache in it, Mona Machree!

The Catholic Standard and Times.

POWER LOT---GOD HELP US

By SARAH McLEAN GREENE

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CHAPTER VII

JOGGINS—NOT SO STEEP

"It's a shame for me to give you the best of everything, Miss Stingaree. You must not do it," Rob brought down the parlor lamp in the morning himself, with this remark. Mary looked up with interest, Bate with stolid amaze.

Mary was entering the room bearing a platter; Rob held the door open for her with his disengaged hand, at the same time bending his head very low. Bate's stolid amaze turned to a sly, knowing leer. "He's after the old girl," thought this exalted being.

Poor Rob would have been only scandalized by the profanation of such a thought. He was not "after Mary": she was out of his reach. But he had awakened unaccountably refreshed, had rubbed himself vigorously with cold water, perforce, there being no other, had brushed his hair to a sense of physical perfection. The tonic of the wild air shone in his blood; and, though he must eliminate Mary Stingaree as any tender aspiration from his equation of life, yet he meant to have just as good a time as possible under the circumstances. So he held the door open, with his masterpiece bow, and waited.

"Thank you," she replied. Her face brightened. Rob continued his courteous offices at the table, begging permission to pass the food whenever occasion required. He addressed some general remarks on the administrative policy of farming to Bate, whose sly leer widened under this auspicious fostering as he growled in reply.

"Miss Stingaree," said Rob, as they rose, "you offered me the—the oxen and cart, yesterday; but I—I—well, I went down to Bear River to make some arrangements about—a—hem—about rockweed. Will it be convenient for you to let me have the oxen and cart to-day?"

"Have you planned to use them to-day, Bate?" Mary asked.

Bate shook his head, with an anticipation in his eye which took on as nearly the hue of wickedness as his dull and degraded emotions could convey.

"Certainly," said Mary, answering Rob's request, "you may take them."

"Your ground's been dressed," muttered Bate contemptuously for Rob's ignorance; "ye'd better plow it up."

"I have my own ideas about that," replied Rob, with dignity. "I wish to make a further application of rockweed, to—to dress it some more, in fact"—the vision of the beach down the shore, and bright, laughing Cudy Tee-bo drawing him away from the sordid and unknown qualities of his unattacked farm.

"Suit yerself," rejoined Bate, departing with the aforesaid glimmer of malign humor on his countenance.

Rob, for his part, went gingerly into the barnyard, though it was not from fear of the oxen, those grave, slow beasts; he meant to keep his boots nice, notwithstanding that fate might wield all her empire to thwart him in this particular. He fastened the bells somehow around the oxen's necks, with a certain pride in the accomplishment of this bucolic rite. Then he essayed to lash the yoke to their horns. The retrospective wisdom of ages sat in their mild eyes as they consented to observe, for a time, the freshness and novelty of his adventures in this regard. One of them, indeed, in an easy fit of abstraction, had become bound after a fashion, at which pass the other indolently demurred, to the extent of stepping a yard or two away out of the range of Rob's boresome experiments. How to get this mildly recalcitrant beast into the required close proximity to his mate?

"Come here, sir," cried Rob manfully, fraternally, "come you here, sir."

Ox, standing a yard or so away, gazed at Rob in a placid, removed irrecurrence of inattention.

"Come up here, good old fellow.

Come alongside. Gee. Haw. Gid-dup. I'm done fooling with you—now you march along up here."

Ox, motionless, closed his weary eyes and chewed the cud.

Rob took the oxwhip from its support against the fence and attempted to snap the lash in true rural fashion. The result was like that of a torpedo which falls in untimely disintegration and does not explode. Ox, dreaming, perhaps, of the insects of summer—dreaming, anyway—rouses enough to survey Rob through the unperturbed fringe of an eyelash and walks to the far end of the yard. Rob tramped through the mire to his rear and flicked him tentatively with the whip. Ox, with a mere show of quickness that was redolent also of contempt, walks to another remote corner. So, round and round the barnyard, Rob followed that dignified, speculative, half somnolent animal, the latter seeking every nook and corner save the accustomed one at his mate's side. Rob, amidst deeper chagrin, surveyed helplessly the spectacle of his boots.

"Bate, Bate!" he called at last, in a confidentially insinuating tone. Bate, if the truth had been known, had gone on down the road to share the facetious news generously with others, and to watch Rob's later procession.

Peering over the fence, Rob saw Mrs. Byjo striding self-confidently over her own acres. He left the occult and confounding proposition in the barnyard, and appeared before her, very cordially, and also very red in the face. His hat went off voluntarily, by his own hand this time:

"Mrs. Stafford, may I ask a great favor of you?"

"Certainly. What can I do to help you?" replied the woman briskly, her good-humored eyes meeting his frankly.

"Those confounded oxen won't hang together," said Rob.

"That so? Well, we'll hang 'em."

With a few sturdy admonitions by word of mouth, and some equally drastic manipulations of the whip, Mrs. Byjo had the oxen yoked in no time.

"When you want 'em to make to the right, 'gee' 'em—so; when you want 'em to steer to the left, 'haw' 'em—this way; when you want to stop 'em, 'whoa' 'em right up for'ard with the whip—so." She handed the whip to Rob. "You'd better take the Joggins road," she added; "it's not so steep, opens right off my farm, there, into the woods. Bear down the lane here, then steer along the track on the edge of the woods till ye turn down into Joggins."

"Thank you, a thousand times—thank you, Mrs. Stafford," said Rob, humbly, obsequious—that is the truth—before the woman who had whacked him the day before, and yoked the oxen for him this morning. But the wind on that hill-plain somehow blew all the past vapors, weaknesses, and mortifications out of a man's brain; its health and monitions were sufficient for the hour.

Rob stepped into the cart carefully, his long legs having known recent paralysis. He blushed a little; he envied, actually, that morning, more than aught else on earth, just the thighs and sinews of a lusty clod-hopper.

"Look here, Mr. Hilton," the woman called after him, with the kindest intention, her sturdy arms akimbo, "if I were you, I'd get out and walk, by Jo, till I got a little more experience drivin' my team."

"Oh, I think I know the ropes now all right, thank you, Mrs. Stafford," said Rob, again lifting his hat; "these beasts never go out of a walk, you know."

Rob did not hear it, but a stifled murmur went down the sylvan shades of the Joggins road: "He's turned in to Joggins. He's in sight. Daisy's comin'." Daisy Lee's a-comin'. He's ridin', too, cock-sure, the ridick'lous ass."

As for Daisy himself, he sat on the rough plank laid casually overlapping the sideboards of the cart; and all his study was, by constant maneuvering, to keep the plank—which was constantly changing its position by reason of the roughness of the road—from upsetting, and at the same time to maintain something like a self-respecting equilibrium. Absorbed in this pursuit, he went rattling and pommeling down Joggins, using the butt-end of his whip for a personal bracer, his clay pipe clenched between his teeth; and so agilely, more and more, did he conduct himself that his pride expanded with each athletic avoidance of overthrow and destruction, his eyes shone with the exercise, his cheeks were braw with color, and, though riding only in a miserable oxcart, to be sure, yet Rob began actually to glow with the sensation of being a big, skillful, devil-may-care, masterful wildman.

Then it was that a domestic cat, having either through some malign human persuasion, or else through some sullen grief and purpose of her own, deserted the affiliations of her proper home for a flight into the woods, sprang pointedly, and with a swiftness that though she had been winged, across the road right in the faces of the oxen.

From no former movement that Rob had ever discerned in them could he have anticipated the panther-like celerity of the elliptic which they now performed in the upper circles of the atmosphere. The ponderous climax of their descent he observed from a sitting posture in the perturbed and indignant center of a mountain spring; the plank which had so recently been his insecure support had hurtled harmlessly over his head, giving him in its fall a no more dignified attack than the throwing of a jocosely splinter to tickle his left ear; while the oxen continued down Joggins on a run not now so swift as it was deafeningly celebrant with noise.

Bate, with an improvised whip, sprang out from the bushes and stayed this unbecoming spectacle of ponderous levity. Another figure emerged with the deceptive mannes as of having paused for diversion on its legitimate way to important affairs. Captain Belcher leaned against a tree, not weeping in spirit, though his appearance was certainly that of an hysterical mourner. He mopped his eyes and cheek with a handkerchief of unutterable hue.

"That circus you giv' me t'other day wan't complete without a chariot race," he moaned, "was it, Mr. Lee? I knew the chariot race 'ud have ter come, and, by Tunk, it has come."

Other apparitions hailed from the covert of the wood, other evidences of lively entertainment greeted poor Rob's wounded ear ere yet he had had time to rise from his sitting posture in the pool by the wayside. Devoutly then he even wished that he might discover a broken bone to shame this heartless ribaldry; but he found on rising that he was entirely whole, nay, even limbered by his abrupt descent into the ditch.

Whether to turn and go home—and meet Mary Stingaree, and Mrs. Byjo, who had become a factor serious to cope with—no; Rob braced himself. His head was clear, and humiliation at a certain depth suffers a rebound. He advanced with square shoulders to the group surrounding the oxen.

"I'm downright sorry, Bate," he said. "I had an impression, somehow, that oxen never got frightened. If you hadn't been in the woods, my carelessness might have done lots of damage to your team. I ought to have been on my guard."

"I knew somethin' 'd happen to ye," replied Bate ungraciously, examining the yoke straps.

"Well, may I go on with the oxen?" said Bob. "I'll walk along at their heads this time."

"Oh, g'wan," said Bate; "ye may as well make a day of it."

Rob tramped on almost clingingly

close to the horned beasts who had betrayed him; though he was now apparently alone, he was sceptical; the air was somehow rife with mischief and the tinkling bells on the oxen's necks seemed to mock his sad, defeated heart. Even in Power Lot, God Help Us, he was already a jest and a by-word, and now at Bear River he had become a byword and a hissing. By the shores of the great Basin there were some neat houses where retired sea captains and moderately prosperous farmers dwelt, a society away beyond his reach; so felt Mr. Robert Hilton, late millionaire.

So judged he implicitly in his really modest, even childlike, heart, however great his outward bravado, that only the lowest of the low would tolerate him, and they, perchance, but condescendingly.

Judging by the Tee-bo cabin, down the River, they, too, were the lowest of the low. Would Cuby have arrived and be waiting to meet him on the beach as she had promised? No, she was not there, he found; nor did she come. The tide was low, it chanced, and he was saved that much ridicule. He had made no reckoning concerning it, and it was only by luck that he had not come down, so perilously and ignominiously, with the oxen to gather rockweed at high tide.

He halted his oxen successfully at the place where Cuby had admonished him to gather in those spoils of the sea, but he had forgotten to bring rake, pitchfork or sheath-knife. Some sparse, ragged kelp had been drifted up on the beach, however, and to save himself from the shame of complete futility, he began gathering it up in his hands and carrying it to the cart. Though he toiled arduously, the accumulated product was startlingly insignificant. He looked not much about him, so grievously conscious was he of unseen existences in the atmosphere peering derisively down upon his toils.

On the contrary, the voice that did actually assail him was mild, feeling, almost timid:

"What in Tamarack be you a-doin'?" it said.

Rob looked up and found that he was alone with the sea, the bowlders, and an old man in a fur cap, red woolen stockings, and short trousers of sacking. But it was the old man's face that held Rob's attention, framed as it was in white hair blowing in the wind, and with eyes like large, young, sinless violets looking out from the sod and seam of weather-beaten features.

"What—tamarack what?" said poor Rob inquisitively, in his confusion.

"Wal, what in tarnation thunder, then, be you a-doin'?"

"Why, I was going to take a little rockweed up to dress my land."

"Le' me see, you're the feller what's come from New York up to Power Lot, ain't ye? God help us."

This instant recognition of him through his dilemma did not seem flattering to Rob.

"I am," he replied coldly, "Robert Hilton. Whom have I the pleasure of addressing?"

"Skipper. Skipper'll do. I ain't heard no other name so long, I'm most forgot I got any other name." Pride, tinged with vanity, dwelt peacefully on the old man's lips as he uttered this term.

Rob melted, "I am delighted," he said, stepping forward, "to make your acquaintance, Skipper."

"Oh, wal, I don't know as we c'd call it gittin' acquainted, yit," said the old man conscientiously, "tho' it may come to that ef we keep on. Ye got a h'ist, didn't ye?"

"What?"

"Yer clo's, to aft o' ye thar, look as though ye'd had a h'ist."

"Yes—oh, yes—I had a h'ist, all right. The oxen shied at a cat."

"Slewed and upshot ye, eh?"

"Yes."

"Hurt ye?"

"No," said Rob bitterly, "I almost wish it had."

"Sho, don't you go wigglin' yer finger at Providence temptin' Him to heave aches and pains on to ye. I know, for I'm a victim o' rheumatiz: it's ache and pain, pain and ache, throb and beat, beat and throb, and, some nights, roll and toss, toss and roll—roll and toss—toss and roll."

"As it is out yonder," said Rob, the vivid restlessness of Skipper's phrase turning him to the poetry of the sea.

"I use 'ter be the very toughest devil 'long shore here," Skipper confided, looking out wistfully to sea.

"It doesn't seem possible."

"It's down in black and white in the Books ag'in' me," affirmed the old man, with a reminiscent sigh of satisfaction. "I was the streakin'est, ontamable dog 't ever made out on the Bay o' Fundy—but rheumatiz has tamed me."

Rob's own actual physical sufferings returned to his recollection, and he yearned as to a kindred soul.

"I was a gre't drinker, too," boasted Skipper, placidly, "an' Gosh A'mighty, the perfunctory I use 'ter use!"

He was preaching, perhaps. Rob bridled. "I suppose you've heard some sort of meddlin', unkind stories about me," he suggested, reddening.

"Never seen ye nor heern tell of ye, afore, 'cept ye was somebody comin' ter Power Lot, fr yer health, God help us." There was no curiosity and little interest in the strangely undimmed, deep-set eyes of the old man. Those pained eyes gave to his face an expression of womanly tenderness, rendered only more wistful by his professed hankering after past wildness.

"Yes, sir; I was a roarer."

"I've been something of a roarer, too," Rob confided in turn, all his suspicions allayed.

"Was ye?" said Skipper, wakening. "Master or mate?"

"Master," blurted out Rob, with tears of regret and desolation in his eyes, "and a poor one, too."

"Run her on the ledges, mebbly, an' wrecked her?"

"Yes."

"Nev' mind. Nev' mind; ye're young; y'll fitten out a new vessel an' gallop 'er over seas, yit, you will. What's the next cruise ye're cal'latin' on?"

"New York City."

"Sho! You strike fr different orders, you ply fr another berth. Sho, down among them 'trusts,' ef I was you I'd make fr some Christian port, or innocent heathen one, I would. Trusts, blame durn 'em, my las' Sunday roast cost me thirty-four cents, an' she didn't weigh quite on to six pounds, neither; an' them trusts is ot the bottom of it, durn 'em."

"What kind of meat was it?"

"Sirline. Lo'ette an' me ain't got our 'riginal God-bestowed grinders no longer; sirline's tough 's we're able to chaw up at our time o'the day."

"What did you use to pay for your Sunday roast?"

"Twenty cents," sighed Skipper.

"It's becoming an iniquitous imposition on you," said Rob sympathetically.

"Don't say a word. Look at medicines and doctors—they've got on to the dicker, too. Had a little friction in my throat; rheumatiz left my legs, one time, 'long about first o' May an' hived up in my throat. Sent the descriptions o' my case to a young doctor the' was then down to Bear River, an', by Tamarack, I sent ten cents, too, along o' the descriptions. He sent me back a leetle box o' pills."

"Did they help you?"

"They purty nigh done for me. I lay so low the case was took out o' my hands, an' the critter came up thar' twice a day in 'tendance on me, till I got my mortality up as wher' I could shout ag'in—then says I, 'You go home an' make out your bill; I ain't goin' to continue the treatment no longer.'"

"How much was the bill?" Rob ventured.

"Fifty cents, by Kresis. I paid the bill, but I got my opinions o' that doctor. Sick er well, I'll anchor up by Perun' the rest o' my days."

"Is Perun' cheap?" Rob questioned, with childlike faith.

"She ain't so cheap," said skipper, with intonations of savory reminiscence, "as she is toothsome. Water's all right, but a n an 't's been the dog I

been wants to tie up once in a while to somethin' 't's got a wasp in it. Now, look at them gulls! Jest look!"

Rob looked.

"They go a blame durn trust o' their own," said Skipper. "I come down here to smelt a bit."

"To what?"

"Wal, not so much to smelt as to herrin'. I reckoned to git a few off the boys; but jest look thar'. Soon as a few herrin' pokes in, the gulls comes an' picks 'em up. See 'em, huverin' an' watchin'—ain't that a 'trust?' New York—you make fr some decent port, young man. Wal, I got ter scabble up the bluffs to 'ds home."

Skipper turned unceremoniously.

"Good-by," said Rob, holding out his hands. Rob had a lonesome look. "I'd like to come up and see you and Mrs. Skipper some time," he almost pleaded.

"God-in-heaven," said the old man, with a frank surprise at the craving look and tone; "why in Tamarack don't ye come then? Lo'ette ain't much ter look at, but she's a good woman, my woman is; one o' these 'ere flower-raisin', Bible-readin', meetin'-goin' kind. It's a good kind ter have. I'm more'n satisfied. Phew, thar' it is, pain an' ache, ache an' pain, beat an' throb, throb an' beat, an' sometimes roll an' toss, toss an' roll; roll an' toss, toss an'—"

Rob gathered the dying cadences of Skipper's apostrophe to rheumatism as he watched him climb the bluffs to the comfortable white house in the distance. Rob, who had been very rich, who had been assiduously courted, before his downward course became too foolish and rapid—Rob looked with awe to that ordinary white house and the coveted privilege of calling on that sad dog, the skipper, and his old wife Lo'ette. He was comforted, though, by his communion with a fellow-creature. The tide had crept in and gathered the rockweed from the beach; so he started the oxen pensively homeward with a scarcely perceptible amount of sea spoil, lying withered and puny on the cart bottom.

He felt that bright Cuby Tee-bo, with the others, had given him over to ridicule, and he tramped on automatically, with his eyes on the ground, and with the intention of getting up the Joggins road in time to saw enough wood to pay for his supper. He was taking this new life stupidly, but, now that his head was clear, with a sort of dogged faithfulness.

"Daisy! Hallo!"

An imperative voice, subdued to confidence, certified him of an engaging presence near; at the same time he caught the starlight and sunlight of brown eyes peering out at him, all the more luminous for the contrast they made with the dark firs skirting the Joggins road.

"Why, Cuby. Hello, Cuby. How do you do?" Rob, the forsaken, could hardly believe his good luck.

"Why didn't you come to the beach as you said?"

"'Cause I'm 'shamed o' you—that's why."

Rob saw interest and affection still lurking under her forbidden demeanor, and, bravely smiling, he stood and gazed at her with an expression of ever-increasing fondness.

"Ridin' bumpity-bump like a green-a-horn down Joggins," she flouted him; "an' gettin' runaway with them oxen. And now, look me, at what you are bringin' home. The boys shall make a laugh at you. Already they wait with Bate to help you unload. Dump out this minute that so small little mess o' weeds."

"Isn't it better to take home a little than none, Cuby?"

"No, it is not so."

With her lithe brown hands she was already scattering the weeds as indistinguishably as possible into the ditch. Rob without further question sprang to aid her in the sacrifice.

"But now I cannot 'dress' my land any," he admonished her.

"I said that to make fool of you—and to have you come to the beach," she admitted "but I knew not that you was already such a fool as you turn yourself out to be. No, I did not."

Rob bit the lip under his mustache. Had the insult come from a masculine source he would have darted an impetuous blow at the aggressor. Offence

or defence were not to be thought of under the circumstances; indignation quickly faded. Cuby was bewitching, in spite of the fussy Sunday hat which she had donned for the occasion. There were three corners to this hat, and from each corner depended a bunch of artificial flowers. Cuby's face sparkled between lilies of the valley and full-blown red roses, and the roses were wan beside her cheeks, and the lilies were yellow in contrast with her teeth. Added to all this brilliance, there was a provoking and alluring flame in her eyes.

"Bate, he says you have begun to make courtin' at his sister, Ma'y Sting'ree."

"It's a lie—oh, she's a nice girl—woman—enough, for aught I know, but I—I don't want her."

"Bate wants me," said Cuby; "he wishes for to get engage' to me mighty bad, too—that I can tell a you."

A queenly indision among suitors hung on her red lips, and she breathed like some wild, sweet thing of the forest. Rob straightway put his arm tenderly over her shoulder.

"I know somebody I do love," he murmured, his winsome face dangerously close to her passionate one.

"Quit you!" cried Cuby imperiously. "We are not yet engage'."

"Well, but why can't we be engaged, Cuby?" suggested desolute Rob, and he held her closer, and his lips pressed hers; and now he was ready to fight for her.

Cuby did not turn pale; she was not so much in love but that she remained complete master of the situation and deliberately, romantically, and skillfully played her victim still further with the spell of her flashing beauty.

"Oh, but you are so beeg, so gr-r-r-and, Rober', Then you wish; why do

you not knock the stuffin's out o' them?"

Rob could have caught her in his arms, so exquisitely beautiful was she in contrast with the virile matter of her speech.

"You shall see," he hissed through his strong white teeth, in a sympathetic ardor of animosity, but, above all, longing to hug Cuby Tee-bo.

"Me—no—I fear you are too sof'," she hesitated sadly; "they make such a laugh, I almost cry, an' am mad; almost they hear me out loud I am so mad, that, after all I tell you, you make yourself so 'sissy.' Ugh! Bah! An' stay not on the board, no, but wreegle yourself, an' go bumpity-bump, bumpity-bump—oh, tam!—an' then make yourself one beeg tumble."

"Very well, Cuby, I was careless, but another time Rob Hilton stays on the board—will you remember that? And right now you've got to beg my pardon for calling me 'Daisy,' a while ago—beg! beg!"

"I think I see myself making baig to such a sof' ninny-sheep like you be."

This, with Cuby's daring nature, was nothing less than an approving challenge, and Rob promptly took advantage of it to imprint another kiss on her tempting mouth, at the same time he squeezed, and roughly, the little hand folded in his.

"Beg," he commanded.

"Wal, then," at last confessed Cuby hopefully, "I baig." She added however with great earnestness:

"Everything—everything, I think, ruo away with you. Even a leetle lamb, sn weak as nothin', make beeg bluff-maybe, an' run away with you. Every, thing run away with you."

"Perhaps that is true," said Rob sternly; "anyway, Cuby—sweet—you have run away with me."

Children's Corner

A PLEA FOR THE FLOWERS.

Dear Boys and Girls:—

There have been so many letters written by the members to the Children's Corner, that I was content to take a back seat for a while. But now that the spring has come and there are so many lovely things to see and do outside there are not so many letters coming in, and I'm going to talk a little, myself.

Speaking of the lovely things to be seen and done in the great out-of-doors, makes us all think of the flowers and the birds. The first robins and crows and the brave little prairie anemone are here, and so we know spring has really begun. When I was a little girl in Ontario the first of spring was the day we went to the woods and found the downy sweet Hepatica and the pink-veined Spring Beauty. We were wild with joy—and because we were so happy and excited we did something I have been very sorry for since. We picked and picked and picked—every blossom we could see, until our hands were so full that we did not notice when some of the flowers fell and were left to fade and die upon the ground. Sometimes instead of breaking off a single flower on its stem, we pulled roughly and the whole plant came up out of the moist soft earth. The best of the blossoms were picked off and the poor plant was thrown down to die, murdered by the hands of careless children.

And because we and thousands of other children worked such destruction id those days, there are fewer flowers for you children to-day. And if you are going to be as foolish—and as wicked—as we were, the next generation of children will have scarcely any.

Doesn't it seem a pity?

What shall we do about it?

It is a great temptation to gather whole handfuls of flowers. Each blossom you came near looks even finer than the one you have just picked, and then a big bunch of them certainly looks pretty. But you will be doing something worth while for the children that will be here when you are grown-up, if you deny yourself the pleasure of picking and be satisfied with just looking.

Is that too hard? Of course, if there are very many of some variety it does no harm to pick a few; if care is taken not to destroy the plant. But some of our most beautiful are becoming very rare, and it is best not to pluck more than a single flower to take home to learn its name. Be kind to the flowers.

Cousin Dorothy.

THE INGLE NOOK NEXT.

Dear Cousin Dorothy:—This is my first letter to the Children's Corner. My father has taken the FARMER'S ADVOCATE and we all like it fine. I enjoy reading the letters of the girls and boys, and I thought I would like to write too. We have thirty-six head of cattle and three little calves, five horses, seven pigs and have sixty hens. I go to school every day. I am in the third reader and our teacher's name is Mr. McI—. He is a good teacher. My studies are arithmetic, spelling, reading, history and composition. My chums at school are Elsie and Annie Bowman. I will soon be too big to write to the Children's Corner.

Man. (b) BITHIA LOCKHART (14)

FISHING THROUGH THE ICE.

Dear Cousin Dorothy:—I saw a letter from Kit Allan saying that it would be nice to get some name for our corner. Well, I think that would be good if we could get a nice name like the Ingle Nook. I think the pen names would also be very nice.

We have had a very mild winter. I hope we are going to have spring now, as we have had a long winter. I have not been going to school for a while, but when I go my studies are the Latin roots, composition, dictation, reading spellings, arithmetic, history, grammar. There are ten non-treaty children attending our school. Since I wrote last we had a concert in our school. I gave a recitation and a song.

The Indians from here have caught quite a lot of fish this winter. They chop holes in the ice and then spear them with a spear or fork.

Man. (b) MAMIE JOHNSTON.

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THE HEN AND THE INCUBATOR.

Dear Cousin Dorothy:—We pass the FARMER'S ADVOCATE on to a friend. I have been spraying lately. I am writing this letter in school. We have an incubator that holds a hundred eggs. We have school at home and there is a cellar under our school room. We set a hen there and we put the incubator there and the hen scowls at it.

We do dictation, copy, composition grammar, spelling, history, geography, arithmetic, reading, and sentences in our school. We are having spring now. There was not much sleighing. We are going to have a holiday soon for Easter. I like reading the Children's Corner. We moved our summer house the other day.

B. C. (a) **ROLAND BARLEE.** (10)
(Why didn't you tell us about the spraying, how and why you do it? The boys and girls on the prairie do not know much about the work on a fruit farm. C. D.)

HAS HIS HAND HELD.

Dear Cousin Dorothy:—I am writing a few lines to you for the first time. I am six years old and can split wood. We live on a farm about nine miles West of Gladstone. We have about fifty head of cattle, six horses and eight pigs. I have three cats and a dog. I should like a photo of Cousin Dorothy. I cannot write by myself yet, but have to have my hand held. My father takes the ADVOCATE, and I like reading the Children's Corner.

Man. (b) **MELVILLE CARRUTHERS.** (6)

A SICK BABY.

Dear Cousin Dorothy:—This is my second letter to your corner. Mother and the baby went to Ontario for three months. They are back now and they had a fine time. I have been going to Cut-Arm school till after Christmas. My teacher's name is Miss A.—and I like her very much. At Breden there is a store, an elevator, a stable and a house. Our baby has been very sick and was not expected to live.

Sask. (a) **LILLIAN EINBODEN.** (11)

SCHOOL WINTER AND SUMMER.

Dear Cousin Dorothy:—This is my first letter to the Children's Corner. My father has taken the FARMER'S ADVOCATE for three years and I like to read the Children's Corner very much. I go to school winter and summer. I have two sisters and two brothers and three of us go to school. Our teacher's name is Miss H.—and I like her very much.

Man. (a) **JEAN WOODCOCK.** (11)

GOING TO READ THE NEXT STORY.

Dear Cousin Dorothy:—I have been reading the Children's Corner since we started to take the FARMER'S ADVOCATE, and at last I have made up my mind to write to it. Our school was out the twenty-second day of February. Our teacher's name was Miss I.—and she was a very good teacher. I am in the fifth grade and have a mile to walk to school.

I did not read the story of Carmichael, but I heard them say that it was a fine story, and I think so, too. But I am going to read the next one, for I like reading stories. We have, for pets, a cat called Taby and a pup called Jap.

I also agree about getting pen-names, but I don't know what my name will be. Now I will close wishing Cousin Dorothy and all the members every success.

Man. (a) **JOHN DAVIDSON.** (12)

ENJOYED THE CHILDREN'S CORNER

Dear Cousin Dorothy:—My father has taken the FARMER'S ADVOCATE for two years. We go to school every day. Our teacher's name is Mr. Johnson. We have nine horses, and a pony named Buster, twenty-one head of cattle, sixty hens and six pigs. We have enjoyed reading the Children's Corner very much. If this letter does not reach the waste basket I will write again. I remain your interested reader of the FARMER'S ADVOCATE.

Man. (b) **JACK GLENDAY.** (10)

INGLE NOOK

STOCKING HEEL AND TOE.

When starting heel divide the stitches evenly, putting half on one needle and the remainder on two. Knit what is on the one needle only. Take off one stitch and knit one all the way across, now turn and take first stitch off without knitting. Knit the remainder the same as if you were ribbing, slipping needle under. Continue until almost a finger length long for a man, then take half the stitches on the heel and one over, narrow one stitch by taking one off without knitting, and knitting one and drawing the unknit one over the knit. Turn and knit 4 stitches, then slide needle under 2 stitches; turn and repeat the same, only go over to the space left by last narrowing before you narrow again. Turn as before and slip 2 again after you pass the space left by last narrowing. Keep on in that way until all the stitches on the outer end of the needle have been taken off, and a three-cornered concern is the result.

There ought to be, perhaps 13 or 14 stitches on needle when done, according to size of stocking. Now, come down one side of heel and take up a stitch for every row long you made it. Now take the stitches off the two needles and put them on one. That brings you to the other side of heel. Now take up stitches same as on other side. You will find it very awkward with so many stitches on, but when you knit to the lower end of the first needle—all but three stitches—you take one stitch off and knit one, pulling one over the other; that forms the gusset on that side. Now, knit over front needle until you reach other side. knit three stitches; take two stitches together; knit plain to top. Repeat this, being careful to always take the stitch you narrow one higher than the row before, and always have three at end of needle after the one you narrow. Keep at that until you have as many stitches on those heel needles as you had on each of the leg needles, and when you have just as many stitches, all told, on your foot as you had on the leg, you can knit around plain until it is long enough to narrow, leaving one-half finger length for narrowing. Now, take two stitches together on each needle every other row until you get all but three off, then draw through those purse string shape and fasten with a darning needle. Hoping this will be satisfactory, I remain,
A Pitying Friend of the Knitter.

MEMORIES OF LONDON.

Dear Dame Durden:—Being very awkward at making apologies, I feel quite relieved to think I haven't to begin that way, now that the stern sex are recognized as permitted to join in the conversation in the Ingle Nook.

When, a short time ago, "White-faced-un" sounded the praises of Herefordshire I was much interested, for it awakened a recollection that had lain dormant for many a year, of a short holiday I spent in youth in Hereford, and was charmed by a visit to Ross; where from a hill overlooking the town, and where the river Wye takes the form of a horseshoe, I first saw the sun set. Since then I have looked down upon the Wye from the Suspension Bridge at Clifton, Bristol, on which same bridge I had walked over the Thames in London before its removal.

I suppose it is natural, with some exceptions, for each one to have an affectionate remembrance of the place of birth or where one has spent the greater part of a life; consequently, if I had eloquence enough I would sing the praises of London,—its thronging streets, the rattle, rumble and roar of its ceaseless traffic, its noble parks, venerable buildings and memories—Westminster Abbey, St. Paul's and many more! Poets and writers have grown eloquent upon it. But I think I heard you say, Dame Durden, not very long ago, that you anticipated visiting England some time. Well, that will mean London, of course; and



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if your sympathies run on similar lines to mine, then don't fail, if in the season, to attend a concert at the Royal Albert Hall, Hyde Park; and if in summer a choral festival at the Crystal Palace, Sydenham, notably that in which I should take the greatest interest: "The London Sunday School Choir," five thousand trained voices assembling on the great orchestra. And my thoughts would then run back to the time when that same building stood in Hyde Park holding the first great exhibition of 1851, about which, being then nine years old, I only remember two things,—a dense crowd, and a wonderful diamond, the Kohinoor.

But I am getting too talkative and will be called to time. Now, if this is too long or too uninteresting make short work of it, into the waste paper basket. My feelings won't be at all hurt.

GRANDPA.

(It was very kind of you to write such a nice letter—not a bit "too long or too uninteresting." The waste paper basket never had a show at it. Seeing England is one of my dreams, but

just now my head is devoting a few minutes occasionally to calculating whether it will be possible to do a trip to Japan in 1912, when the exposition is held in Tokio. The idea may be utterly absurd and may never work out, but there is no harm in thinking of it, is there? Let us hear from you again. D. D.)

A HOSPITAL WORKER.

Dear Dame Durden:—I must congratulate the Ingle Nook on the many interesting letters, on various subjects, it has given us lately. I enjoyed the gardening and poultry articles, and would like to say something on the subject brought up by "A Farmer's Daughter," for I have thought of that matter often; but I must leave it for another time.

I must thank Dame Durden and the several Chatterers who have wished us success in our Hospital venture. We are still waiting for the decision of the Methodist mission board of directors, into whose hands it has been put, and

we sincerely hope they will decide in our favor. I do not wish to convey the impression that I am a prominent figure in promoting the hospital project, for I have had very little to do with it, beyond doing my share with my husband toward the subscription, and working with the Ladies' Union who are bending their energies to obtaining it. But my heart is in the movement, for we sorely need such an institution here, and if I were rich enough, Bella Coola should not be long without a hospital.

Wishing the Ingle Nook and all its members a prosperous season, I remain Sincerely yours,

BELLA COOLA.

(Perhaps you do not think you are doing much, but we are of the opinion that when one gives money, work and interest, there isn't much else left to give. Good luck to you! D. D.)

A BUSY WOMAN'S GARDEN EXPERIENCE.

Dear Dame Durden and all:—This busy Monday morning while resting a

few minutes, I will say from my own experience in Manitoba, that just as soon as possible, in spring, sow black seed onions, not too deep, in rows or beds, whichever is the easiest for you to care for, then radish and lettuce, also pepper-grass or cress, as you can then have a good salad early in the season. Peas should come next, sowing in double rows, two feet apart; then parsnips, carrots and beets. The ground should be thoroughly warm before planting beans or corn, and the danger of frost nearly over, as they germinate quickly. Cucumbers can be sown after corn and potatoes are in the ground. Tomato and cabbage, I start in the house, or make a hot bed. Tomatoes should be sown a month before cabbage, or the first of March.

I have never had good success with water-melon, pumpkin or squash in Manitoba. Those living "in the bush" might succeed where I have failed.

The advantages of having a good vegetable garden are:—

1. Furnishing good food.
2. Plenty of fresh vegetables well cooked are better for one's health than any patent medicine.
3. The profit derived for home use has saved many a store bill.
4. If one has strength and time, a woman can easily obtain a little "pin money," if the home market is good.
5. I have gained health, and strength, working in the garden, say an hour or two each day.

Hoping this will help somebody, I am a friend of the Ingle Nook, though a stranger.

M.E.N.

MEADOW LARK.

(You are a friend, indeed, and no longer a stranger. Have you ever tried growing the musk melon. I heard a fruit dealer say that the finest flavored musk melon he had ever handled was grown in the Altona and Gretna districts of Manitoba, by the Mennonites. It should do well with you. D. D.)

RICE RECIPES WANTED.

Dear Dame Durden:—I am a new reader of the Ingle Nook as we have taken the FARMER'S ADVOCATE only for a short time. Seeing Margaret W's letter, I thought I would try to tell her about knitting the heel and toe of a stocking.

When the leg has been knitted the required length, leave a number of stitches divisible by four, and one extra stitch, then divide these so as to leave one half the stitches, also the odd stitch on the heel needle; the remaining stitches divide evenly on two needles. Presuming you have 61 stitches when commencing the heel, knit the heel needle containing 31 stitches as though you were going on with the leg, but instead of this, turn your work and *purl across (this purled needle is the first round on your heel) turn and knit across plain purling the 16th stitch. Repeat as many times as you have stitches on either side of centre stitch. This makes the heel square.

Now to shape the heel knit as follows, commencing, of course, with the purled needle:—Purl across until you have knitted a purl stitch in the center of of work and one beside; purl two together, purl one; turn, slip one; knit four, knit two together, knit one; turn, slip first stitch, purl across until you come to within one stitch of where you turned before, purl two together; purl one, turn, and keep this up till you have no more stitches left after the turning, finishing up with the plain row. Pick up the stitches at side of heel, knitting them as you go along; knit the two needles you left when you started the heel, on to one needle; pick up the stitches on other side of heel, then knit sufficient stitches off the next needle to make these two contain the same number of stitches. Narrow on these two needles till you have the same number of stitches you started the heel with.

For the toe proceed as follows:—*Knit two, knit two together, then knit across plain till you have only four stitches left. (Commence on needle on top of foot) Knit two together, knit two. 2nd. needle.—Knit two, knit two together, knit across plain.

CLOTHES HINTS.

To clean fine lace rub well in corn-meal, then shake well and iron between a damp cloth with a soft pad under. The lace will come out like new.

In cleaning knitted woollen goods see that they are perfectly dry; then take flour enough to cover them well; rub using clean flour each time.

A last year's taffeta suit was most successfully cleansed by a clever woman I know. It appeared to be a perfect "mess" of little fine wrinkles, was absolutely unworn, but had lost every bit of its crispness. She laid it over an ironing board and with a soft brush went over every bit of it with alcohol. It was quite damp with the alcohol, and she hung it out of doors to evaporate and when it was brought in it was as crisp as new and as unwrinkled as the day it came home from the dressmaker. A silk petticoat, by the way, can be nicely cleansed by scrubbing it with a large piece of old velvet after first brushing it very thoroughly with a stiff brush to get off any dirt. The nap of the velvet has a peculiar virtue in removing the dust that collects in the convolution of the ruffles and platings as endless brushing can not do.

* * *

Soiled and limp straw hats in white and cream color can be nicely cleaned and stiffened by washing in a weak solution of oxalic acid. Remove all trimming. Dissolve one or two tablespoonfuls—one need not be exact—of the crystals in a bowl of warm water. Wash hat thoroughly using a nailbrush. Rinse well in two clear waters, and dry in sun and air. Men's hats are particularly easy to clean, as are all, Milan, and stiff straws.

* * *

Infant's First Shirts.—Some use Lady Betty wool for first shirts, but a more practical mother, who at the same time wishes everything dainty, will select Baldwin's merino wool, of which two and a half skeins will be required for each shirt. Cast on 70 stitches, and knit plain and purl, using fine celuloid needles, not steel. If you wish to make a yoke reverse the plain and purl stitches every third row, i.e., knit two rows alike, then two rows reverse, plain where purl and purl where plain. Two stitches each make a nice yoke. When you have obtained the required length of shirt, knit (about) 18 stitches, cast off all the rest except last 18. Continue knitting these, forming shoulder portion. When these are required length, cast on enough stitches again to make 70, and continue knitting the other half of the shirt as at first. For the sleeves, cast on (about) forty stitches, and knit plain and purl ribbing for required length. Close to the sides of the shirt, leaving the arm hole portion and top; sew the sleeve to the shirt with wool. Crochet a pattern round the neck to run a ribbon in. This size will be found a little on the large side for the new born infant, who will, however, speedily grow into it, whereas a smaller size would have to be discarded probably before three months.

INGLE NOOK NEWS NOTES.

"Agnes" sends recipes for good Christmas pudding, and suggests that when using lemon cheese for cakes it is an improvement to add a grated sweet biscuit or small sponge cake. She has tested most of the capabilities of packing boxes. She had nine: six made two cupboards, one a wash board, one a dressing table, and the ninth a washstand. That's making good use of them, isn't it? I wish she would explain the construction of the wash-board.

Prairie Bell asks how to remove fly specks from polished furniture. Take a soft sponge, wet with clean cold water, and wash over the article. Then wring a soft chamois skin out of clean water, wringing as dry as possible and wipe the article dry. Wipe only one way. If the spots are very bad try this solution:—1 pint of 98% alcohol, ½ ounce ground resin, 1½ ounces gum shellac. After the resin and shellac cut in the alcohol, mix in a pint of linseed oil, and give the whole a good shaking. Apply with a cloth and polish with a flannel.

Trade Notes.

FRUIT AND FARM LANDS CO., LIMITED.

This company has been very fortunate in securing a large block of the very finest arable land in the Kootenay. They intend to go into the colonization business on quite a large scale.

Mr. Thompson, the Manager, has just returned from a trip of inspection of their holdings and he is perfectly enthusiastic. He found things in a very flourishing condition. The people were happy and prosperous and are looking forward to an exceptionally good fruit crop this year. They are equally sure that there will be a large influx of settlers during the coming summer. Their expectations in this latter respect will be fully realized. In spite of the fact that the Company has not yet started its advertising campaign in real earnest, they have got together a band of twelve actual settlers, who will start for the Kootenays in the course of the next ten days. Eight of these are practical farmers.

Given a beautiful climate, which is never too hot nor too cold,—work, which is pleasant,—and land, which if properly handled, will pay for itself in the first year,—what more could any person want?

For market, there is the whole of the Kootenays, Alberta, Saskatchewan and Manitoba. There will be quite a boom in the fruit canning industry in the Kootenays this year. Two new Companies are being formed and will be in operation in time for this year's crop. During the fruit season there are six boats a day from Kootenay Landing to Kaslo. These boats stop at any place on being signaled. This makes it possible for the farmer to pick his fruit in the morning and put it on the boats almost immediately. It is then conveyed to Kootenay Landing or Nelson and from there by train to all points East and West. Thus, the Kootenay is a day nearer the Eastern market than any other fruit raising district. The C. P. R. arrange special facilities for refrigerator cars during the season.

Fruits thrive in the Kootenay absolutely without irrigation. The map shows that the whole of the vicinity of Kootenay Lake is threaded with small streams. These streams have the effect of a perfect system of irrigation and drainage. Furthermore, rising in the snow-capped mountains, they are at all times pleasantly cool and pure and provide the very finest of drinking water. It has been demonstrated that fruit raised in non-irrigation districts is far superior to that where irrigation is necessary.

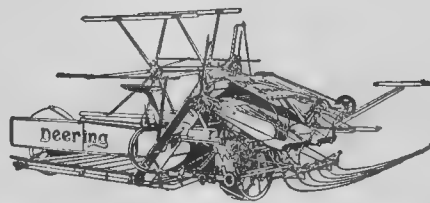
With regard to the Company's land—the soil is absolutely A. I. and cannot be beaten anywhere. It lies on the East shore of the Kootenay Lake almost opposite Kaslo. There are three benches with a gradual slope to the lake front. The proximity of the lake acts as an absolute safeguard against spring frosts. Fed, as it is, by the mountain streams, it is at all times perfectly cold. This has the effect of making the spring a little later than in other fruit districts. Consequently the fruit does not begin to mature quite so early, and runs no danger of becoming frost-bitten. One very great advantage lies in the fact of the Company's situation on the east side of the Lake. The morning dews have a chance to become absorbed by the plants before the hot sun can focus its strong rays on the little globules and produce that blight, which is so often noticed on apples and pears. The farmer can raise absolutely perfect fruit.

The offices of this energetic Company are at 622 Union Bank Building. Enquiries addressed to them there by any person desiring information, will receive immediate and careful attention.

THE McCLARY ADVERTISING SYSTEM.

An interesting series of ads will start in this paper with this issue on behalf of the "Sunshine" Furnace, manufactured by McClary Mfg. Co., London, Canada. Newspaper advertising is a part of the

THE DEERING

for
GRAIN CUTTING
WITHOUT
INTERRUPTIONS

WHEN the grain is ripe you want the work of harvesting to go right along. You cannot afford to be annoyed by breakages and delays.

Breakages and tinkering with the knottor or other parts to get them to work right means more than vexatious delays. It means expense and it may mean that you will not get your grain harvested in good condition.

The Deering binder comes nearer giving you insurance of uninterrupted work than any machine you can buy.

What can be more satisfactory to the grain grower at the beginning of harvest than to have a machine he knows he can depend upon?

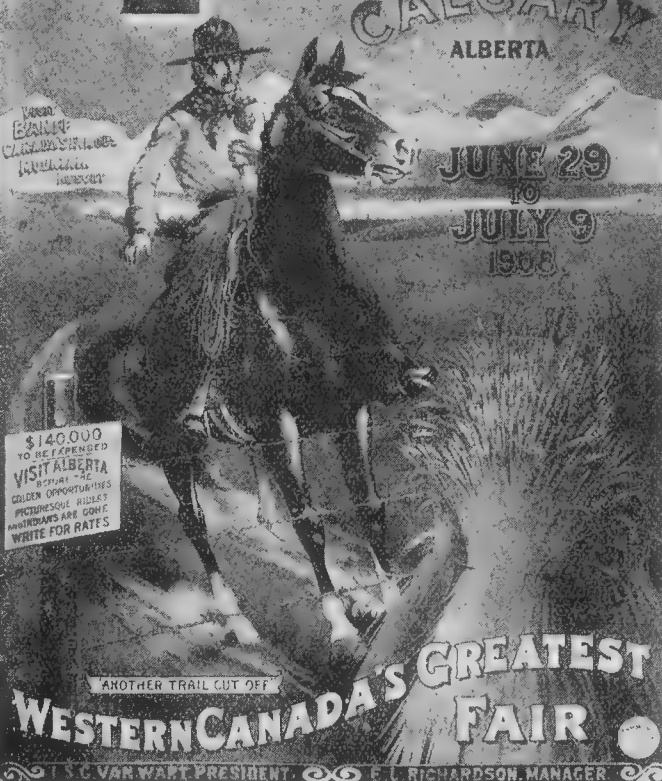
The Deering binder is such a machine. It has stood the test in thousands of harvest fields.

It is not only dependable and

CANADIAN BRANCHES: Calgary, Alta., Hamilton, Ont., London, Ont., Montreal, P. Q., Ottawa, Ont., Regina, Sask., St. John, N. B., Winnipeg, Man.
INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO, U. S. A.
(Incorporated)

right working but it harvests all the grain. It handles tall and short, light and heavy, down and tangled grain all to a nicety and with least possible loss. Machines are made in 5, 6, 7 and 8-foot cuts. In addition to grain harvesting machines the Deering line includes binder twine, mowers, tedders, sweep rakes, side delivery rakes, hay loaders, stackers, corn machines and knife grinders. Also a complete line of tillage implements and seeding machines, comprising disk drills, shoe drills, hoe drills, cultivators and seeders, smoothing, spring-tooth and disk harrows, land rollers and scufflers. Also gasoline engines, cream separators, hay presses, feed grinders, wagons, sleighs, and manure spreaders.

For all particulars call on the local Deering agent or write to any of the following branch houses for catalog:

DOMINION
EXHIBITION
CALGARY
ALBERTA

\$20,000
in
Prizes

\$13,000
in
Purses

For Prize
List and
Illustrated
Pamphlet
Write
the
Manager



HEAR THE 91st HIGHLANDERS AND IOWA STATE BANDS
SEE STROBEL'S AIR SHIP and other High Class ATTRACTIONS

HUDSON'S BAY COMPANY

LEASING OF LANDS

The company is prepared to lease for hay and grazing purposes all reserved quarter or half sections. For particulars apply the Land Department, Hudson's Bay Company, Winnipeg.

LEARN DRESS-MAKING
BY MAIL

in your spare time at home. We will give, direct to the public, our \$15 course, including our Ladies' Tailor System for wholesale price, \$5. As there are a large number say you cannot learn by mail, we will send system and first lesson (which teaches how to make a perfect fitting waist) to any address in Canada. After you are satisfied you can learn, send \$5 and we will forward full course of lessons. We guarantee to give \$500 to anyone we cannot teach. These lessons teach how to cut, fit and put together any garment, from the plainest shirt waist suit to the most elaborate dress. We have been in business for over ten years, have taught over 7,000.

Write for particulars.

Address—SANDELL'S DRESS CUTTING SCHOOL,
31 Frie Street, Stratford, Ontario, Can.



THE MOST CONVENIENT TRAIN SERVICE

is via the
CANADIAN NORTHERN RY.
between

Winnipeg, Portage la Prairie, Gladstone and Edmonton

Winnipeg, Carman, Hartney and Virden

Winnipeg, Morris, Emerson and points in the United States

Our Dining and Sleeping Car Service will please you

Any Agent will be glad to furnish information and time tables, or write



C. W. Cooper
Asst. Gen. Pass. Agt.
Can. Nor. Ry.
Winnipeg Man.

I am offering, for a limited time only, One Hundred Acres of water front on
VANCOUVER ISLAND
which I am prepared to subdivide into ten or twenty acre blocks.
The situation is unequalled and the soil is the best.
Price \$50 per acre.
For further particulars write
JOHN STEWART Land Agent
Ladysmith, Vancouver Island, British Columbia
Reference: Canadian Bank of Commerce, Winnipeg



This Label

When you buy OVERALLS and SHIRTS

You naturally want the best value you can get for your money. If you buy American made goods you pay 35% duty and you can get just as much if not more comfort and service by wearing Canadian made goods, providing you get the guaranteed kind with a label on like the above.

Remember, there are none just as good at the price and none better at any price. Ask for

KING the of ROAD
R. J. Whitla & Co. Ltd., Winnipeg

McClary publicity programme and works hand in hand with an extensive follow-up system. The series of ads. were prepared by A. A. Briggs, Advertising Manager of the McClary Company and placed by McConnell-Ferguson Advertising Agency, London.

ROOFING GUARANTEES.

A recent and important development of the roofing trade has been the introduction of a number of ready roofings, the principal feature of which is a ten years' guarantee.

The real significance of these guarantees is so misunderstood and so frequently misinterpreted that we wish to point out some of their valuable and some of their misleading features.

Irresponsible guarantees and those calling for periodical painting are obviously valueless, but aside from these a roofing guarantee at its best is, and must necessarily be, only an agreement to repair for a specified period any leaks that may develop, due to defective workmanship or materials. That is all.

An intelligent investigation of the subject will convince any reasonable buyer that what he wants is a roofing that really protects—one whose manufacturers can point, not merely to a guarantee, but to roofs all over the country that have been in use twenty and thirty years and are still in serviceable condition, and whose record of low cost per year of service is absolutely unequalled.

There is only one class of roofs made that answers this description: namely, roofs of Coal Tar Pitch, Felt and Slag or gravel laid along the lines of The Barret Specification. Such roofs have been giving service of the kind described for over fifty years and cover more of the first class buildings of the country than all the other kinds put together.

Readers would be well advised to write to the Canadian Agents of this firm for further information. The Paterson Manufacturing Co., Winnipeg.

CHAS. E. WEST, GOTEBA, OKLA., writes under date of Nov. 15, 1907. "I purchased your ABSORBINE from the druggist and applied it according to directions for Bog Spavin and had grand success. One bottle was enough to do the work. I can give high praise for your ABSORBINE and shall recommend it for Bog Spavin above all other medicines that I tried, and I tried a good many different kinds." If you have a lame or blenished horse in your stable, get a bottle of ABSORBINE today, and you will be surprised at the satisfactory results you will get. ABSORBINE removes bunches, kills pain, and cures lameness without blistering or removing the hair; horse can be used. Mild and positive in its action and cures to stay cured. Try a bottle today and you will find it a necessity in your stable hereafter. At all dealers or express prepaid upon receipt of \$2.00. W. F. Young, P. D. F. 46 Monmouth St. Springfield, Mass.

Serum Therapy is without any question making rapid advances and is destined to become the ideal and established method of combating infectious and contagious diseases of man and beast. The Pasteur Vaccine Co., is, therefore, confining practically all its time to the sale and introduction of Biological Products.

They are now supplying an improved Anthrax Vaccine that will keep for about six months instead of a few weeks as heretofore and which is furnished in their established blue tube and sold under their regular label and trade mark, so that the genuine article is readily recognized. Their experts have made general improvements on this subject, and hope to announce in a few months' time their ability to supply an absolutely reliable Single Treatment Anthrax Vaccine at a reasonable price, the latter being the only difficulty they have to overcome at the present moment. Their experts are also considering the advisability of furnishing Anthrax Vaccine in the Cord Form, similar to their well known Blacklegline.

When in need of any Biological Products specify "PASTEUR" or "PASTEUR VACCINE CO." on your orders, so as to secure the genuine article. The Pasteur Vaccine Co., supply Antidiphtheric Serum, Antistreptococcic Serum (human and veterinary), Antitetanic Serum (human and veterinary), Antiplague Serum, Mallein, Tuberculin, and Tuberculine for Oculo and Cuti-Reactino, all of which are produced at the Institute Pasteur, Paris, France. Branches at Chicago and New York. See advertisement.

Portable fire, wind, rain and vermin proof granaries are advertised in this issue by the Jubilee Metal Cornice Works, Winnipeg. These granaries are easily moved to the field and set down where the grain spout from the thresher can empty into them. For keeping grain over winter especially clean, pure seed, there are few devices that equal them. Their regular size is eight feet high by eight feet in diameter but they may be ordered in any size desired.

GOSSIP.

In this issue of the first announcement of the sale of Shorthorn cattle to be held by Messrs. John Dryden and Son, Brooklyn, appears. The sale is set for June 5th and includes a choice selection of cows, heifers and young bulls. In the lot are cattle fit for showing and others whose show days are over but are breeding the best of stock; Messrs. Dryden and Son show only young stuff. Mr. George P. Bellows of Maryville, Missouri will cry the sale and will handle bids for anyone who feels it too far to go to personally attend. Catalogues will be sent upon application to anyone mentioning the FARMER'S ADVOCATE.

The Letellier, Man, Clydesdale Horse association of which Mr. W. Fraser is president, recently purchased their second stallion to travel in the district. The choice this time is Baron Brendan (imp) by Barons Pride. Baron Brendan was imported by O. Sorby of Guelph and brought to Manitoba by W. H. Nesbitt of Roland, where he made the season of 1907. The association at Letellier has been organized seven years and is becoming more particular in their choice of a sire.

A HAY COILING MACHINE.

A Belfast (Ireland) man has just been granted a patent on a hay coiling machine, which goes to show that all the ideas in labor-saving farming machinery do not originate on this side of the Atlantic, as some suppose. This Irish man's invention is somewhat unique and as described in the Dublin Farmer's Gazette, would seem of little use in hay fields in this country where men have less time and less need to coil the hay than they have in the old land. The machine is of a type in which a mould capable of being inverted to deposit its contents is mounted on a wheeled frame. The front wheels of the frame drive an elevator consisting of one or more chains having bars attached. These bars move in guides and carry tines which raise the hay and deposit it in a mould. The mould is mounted on trunnions placed behind its center line moving in guides and carrying spur wheels, which, gearing with the rack, cause the mould to be lowered as it is inverted. Weights are used to pack the hay in the mould. When the cock is deposited, the rare parts of the mould, which are hinged to the front part, are opened out to release it. Ropes placed in the mould are held by clips until the filling is completed, and are then attached to a cross shaped frame placed upon the hay. The frame also serves to keep the cock from the ground. A core, consisting of three or more rods loosely connected at one end and separated at the other end by the cross frame which is pushed between them, may be inserted in the cock to ventilate and support it. At the front of the machine are arranged two rotary rakes, consisting of discs, and carrying arms. When in position the arms stand out radically, resting in the recess, and, as the disc rotates, collect the hay from the sides of the machine. When the arm has passed thirty to sixty degrees beyond the lowest point, it engages a lug on the frame of the machine and is lifted out of the recess, falling into a vertical position.

Biliousness

and its Remedy.

When your liver is out of order your whole system suffers. Your food ferments in your stomach and intestines, causing windy spasms, and the impurities that result enter your blood and are carried to every part of your system. The results are nausea, sickness, headache, blurred sight, pains between the shoulders, furred tongue, languor and general depression of spirits. Mother Seigel's Syrup overcomes all that, because it puts your liver right and keeps it right—and your stomach too. Mme. Auguste Ouellette, St. Jean Port Joli, L'Islet Co., P.Q., writing on Jan. 24, 1908, says:—"After meals I had severe pains in the stomach, and I was pale and thin from sleeplessness and headache. Mother Seigel's Syrup cured me when nothing else could."

MOTHER SEIGEL'S SYRUP.

Price 50 cents per bottle. Sold everywhere.
A. J. WHITE & CO., LTD., MONTREAL.

Blair's Pills

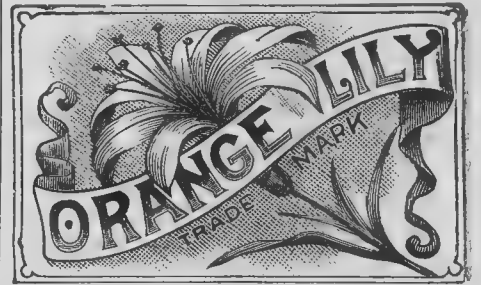
Great English Remedy for Gout & Rheumatism

Safe, Sure, Effective. All Druggists, 40c and \$1.00.
LYMAN, BONS & CO. MONTREAL.



"Orange Lily Saved My Life"

These words or expressions having the same meaning are contained in hundreds of the letters I have received during the past year. Many were from women who had suffered agonies from



Falling of the Womb; others from women who had escaped dangerous surgical operations, as the tumors and ulcers had been removed by the action of Orange Lily; and others who had suffered from suppressed menstruation, leucorrhoea, painful periods, etc. For all these and the other troubles known in general as Women's Disorders, Orange Lily furnishes a positive scientific, never-failing cure. It is applied direct to the suffering organs, and its operation is certain and beneficial. As a trial actually proves its merit, I hereby offer to send, absolutely free, a box worth 35c. sufficient for ten days' treatment, to every suffering woman who will write for it. Address, with stamp—

Mrs. F. V. CURRAH, Windsor, Ont.



The Life of the Wheel

depends upon the make of the wheel.
ELECTRIC WHEELS
last almost forever. Fit any wagon, straight or staggered spokes. Write for the catalogue. We mail it free.

The Harmer Implements, Winnipeg

FULL LINE OF FARM IMPLEMENTS W. EDDIE 128 Princess St., Winnipeg

Have you Received YOUR Copy?

Thousands have sent for a free copy of "Practical Farm Buildings"—are you one of them—are you getting the help of its expert directions for erecting and repairing all farm buildings? Don't miss your copy. Incidentally, it gives mighty valuable information on the roofing question.



There's no part of your building so exposed as the roof. **PAROID READY ROOFING** steadily withstands abuse from the elements—you know when you lay it that your roof will last for years to come.

But this is one quality only—you'll learn the others and a great deal more when you get the book. Send for it—send NOW.

F. W. BIRD & SON, Established 1817 in W.S.A., (Dept. 5), Hamilton, Ont.



THE FARMER'S PORTABLE KNOCK-DOWN Galvanized Steel Granary

Fire proof—Wind and Rain proof—Mice, Rat and Vermin proof—Good ventilation—The only Tank made that the Farmer can put together himself quickly and without any trouble or delay. These Tanks can be put up by the Farmer, and not have to drive miles to get a man to put them up. Each section is numbered and you cannot go wrong in erecting. Regular size of Granaries 8 ft. diameter and 8 ft. high, but can be made larger. Send in your Orders early so as to insure quick Delivery.

Send in your Orders as early as possible for a complete Farmer's Granary and get ready to handle and store your grain at threshing time. All orders received will be immediately filled and shipped without delay. : : : Prices sent on application.

MANUFACTURED AND FOR SALE BY

The Jubilee Metal Cornice Works
Phone 3784 701 Wellington Ave., WINNIPEG, Man J. W. Wright, Prop.

Sole Owner and Manufacturer of this Patent.
All infringement of the above Patent Tank will be prosecuted.

Your Next

order for Route Cards and Business Stationery will be appreciated by us; we want to show you how much better our work is—"a little better than seems necessary."

THE FARMER'S ADVOCATE, 14-16 PRINCESS ST., WINNIPEG



In Case of Emergency

saving time means saving money. The quick way to get repairs, assistance, or information, is to use the telephone.

Canadian Independent Telephones

connecting you with friends, the village, the town or station, enable you to get help in time of trouble—save so much driving—give you more time for work in busy seasons—and are an endless source of pleasure to every member of the family.

By putting in a neighborhood telephone system—you and the neighbors can have the best telephones and the best service, at a fair price.

We will gladly send a booklet telling about the cost, etc., of putting in Canadian Independent Telephones. Write to-day.

Canadian Independent Telephone Co., LIMITED
26 Duncan Street, Toronto, Ont.

QUESTIONS AND ANSWERS.

UNTHRIFTY CALVES.

Will you kindly advise me through your columns on the following:

I have a bunch of small heifers, coming two-years-old this spring. They got with calf last year, have just started coming in. One had a dead calf, another one's calf was so feeble it died a short time after it's birth. Both calves were apparently fully matured, and were good sized.

The heifers have been rustling during the day, all winter, with a good feed of hay or green feed at night and morning, and are in pretty good shape.

1. Can I do anything to insure strong living calves from the remainder?

2. What can I do to revive those calves that are born in a weak, half-dead condition?

3. How can I get heifers to clean when they do not do so after 4 or 5 days?

Alta.

C. H. S.

Ans.—It is practically impossible to put more life into calves that are so low in vitality. The fact the cows do not clean, however, indicates that they are in need of softer feed, and if that want were supplied, probably the calves would come stronger and do better after birth. Grass is the best and most natural of safe foods, but since the new grass is not ready bran or boiled grain with plenty of salt, should improve matters. Some stock find that feeding whole oats for a few days before calving prevents retention. The best means of reviving the weak calves is to get their dams milk down their throats, and of course, give them comfortable quarters.

When the after birth remains, it can sometimes be brought away by weighing it. When this fails try an injection of warm soapy water, and as a certain method of removal bare the hands and arm, rub with carbolic oil, insert, and with the fingers loosen the cotyledons, separately, by running the first and second fingers each side, and the thumb on top. Press down with the thumb and lift with the fingers. This operation This operation takes considerable time, as there are about 100 of these 'buttons' to loosen. A few feeds of boiled grain before and after birth should save the trouble of the operation.

HOMESTEADER'S DISPUTE.

Would like to settle a dispute between two neighbors, A and B who are on adjoining homesteads: While A was absent from home, B went onto A's place and cut poles for the line fence between A and B. Can A make

B pay for the poles; if so how much per pole?

2. A took up homestead in November, 1905, commenced homestead duties the following April, 1906; put six months on it and went away; came back in April 1907; and had an extension of time till the following October 20th; then went on it, and stayed till the 20th of April, 1908. How would you count that time? When could he apply for his patent?

Alta.

W. R. Mc.

Ans.—1. B had no right to go on A's land to cut poles for any purpose, and is liable to B for the value of the poles. This value should be determined by the average price of such material in the district.

2. Our opinion is that A will be allowed the time he put in in 1906. The time he put in in 1907 will not count, as he must put in six months residence in each year. If he lives on his homestead from January 1st to June 30th, 1909, and two-and-one-half more months this year, he will have discharged his residence duties.

FEEDING OXEN.

I am informed that working oxen should never be fed grain, either whole or ground, that it is very injurious to them, and that they should be fed nothing but hay. I am feeding mine, hay and oat chops, and intended to increase the chop as soon as I started spring work. Kindly state what amount of oat chops by measure along with all the hay they can eat should be fed to them per day, to keep them in good growing condition while at work. If oat chop is dangerous, please state what grain should be fed.

Ont.

R. H.

Ans.—As a general rule working oxen do not get much grain, and as they manage to get through their work without grain, it is sometimes assumed that they do not require anything but grass or hay. But oxen respond to grain feeding just as horses do. Although a heavy feed of hay will stay with an ox longer than it will with a horse, as the ox has greater stomach capacity. Oats either ground or whole fed at noon and again at night will do much to keep the cattle in heart and flesh. From two to three quarts to each ox, noon and night is fair feeding with good hay or grass.

UNTHRIFTY COLT—PARTIAL PARALYSIS.

1. Colt foaled September, 1906, had slight attack of distemper in the spring of 1907; was castrated in May, 1907; had distemper again, and legs swelled in June. The swelling disappeared, but he became very poor, and has remained so. He has been well fed, but will eat little hay, and will not take drugs in food.

2. Brood mare became paralyzed in both right legs last September. She improved slowly, and now can walk, rise without assistance, etc., but is not improving now. She will be due to foal in May.

C. S. R.

Ans.—1. It may be there is an abscess of distemper in some of the internal organs, and, if so, it will kill him. If there be nothing of this kind, he will recover. Take three ounces each of sulphate of iron, gentian, ginger and nuxvomica. Mix, and make into forty-eight powders. Give a powder three times daily in half a pint cold water as a drench. Feed, well and give regular exercise.

2. Feed on easily-digested food, as clover hay, bran, rolled oats, linseed meal, and raw roots, and give her two drams nuxvomica three times daily.

C.R.

COLT TEETHING.

Horse, rising four years old, does not thrive well. He feeds well, feels well but is in poor condition. He has no worms, and is fed liberally, with sufficient work or exercise to warrant a much higher condition. Is it possible his teeth are troubling him? Can anything be done to improve his condition if he is losing his teeth?

Ans.—The trouble is probably occasioned by his teeth, which should be carefully examined by someone who understands a horse's mouth. At from three years and three months to four



The Needle's Eye

We first test everything which enters into our cartridges and shells, then test at various stages; finally the finished product is shot under all conditions, in all makes of arms, against all other makes of ammunition.

Our tests are pronounced by European experts the finest in use anywhere.

For all makes of arms. Costs one-third to one-fifth less than duty paying ammunition. Our guarantee puts all risk on the Dominion Cartridge Co., Ltd., Montreal.

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Desirable Residence near Enderby, B.C.

Residence with Fruit Land: frame house, 7 rooms and hall; good cellar, veranda on three sides, size 30 x 26, extension kitchen 16 x 16, with room upstairs; frame stable, 18 x 34; frame chicken house, 12 x 24, double-boarded two thicknesses of building paper; 20 acres land, 16 acres bench land suitable for fruit, 4 acres bottom land, very rich, excellent for growing vegetables; a splendid creek which never fails, runs through the property; 2 acres of the bottom land is under cultivation; about 3 acres of the bench land is in orchard, 170 fruit trees, apple, pear, plum and cherry, commenced bearing last year; 1 1/4 miles from Enderby, on main road

Price \$6,000, half cash.

JAMES MOWATT,
ENDERBY, B. C.

KOOTENAY

Canada's fairest district. No blizzards in winter, no sand storms in summer, no fuel famines in December, no grain blockades in September.

That's Kootenay District

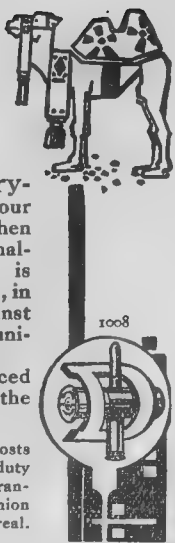
The choicest property in the Kootenay District. 45 minutes from Nelson four times a day. Half an hour between stones and as level as a prairie farm. Station, P. O., school, store, hotel, only five minutes walk.

That's SLOCAN PARK

Uncleared land \$100 per acre
Cleared ,, \$150 ,, ,,
Cleared, plowed and planted \$200 ,, ,,
Only 2% cash and 2% per month—no interest.

Kootenay-Slocan Fruit Co. Limited
Nelson, B. C.

Advocate Ads for Results



years, the third molar in each row (a temporary one) is shed, and replaced by a permanent one, and the sixth molar in each row appears. It is not at all uncommon to see a colt between three and a half and four years old become unthrifty and have apparent difficulty in masticating. During the growth of the permanent molars the fangs or roots of the temporary ones gradually disappear by absorption as the new teeth grow. In normal cases, by the time the new tooth has reached the level of the gums, the fangs of the temporary one have become so absorbed that the crown drops off, but in many cases on account of incomplete absorption this does not occur, and the new tooth continuing to grow forces the temporary one above the level of its fellows, rendering mastication difficult or impossible, and unless the animal be fed on soft food, he will fail in flesh and energy. Whenever unthriftness, without apparent cause, is noticed in colts of this age (or from two and a half to three years, during which time the first and second temporary molars are displaced by permanent ones), the molars should be carefully examined, and if any of the crowns are not shed, they should be removed with a forceps.

COLIC INDIGESTION.

I would like to have your opinion on, the first symptoms, cause and cure of colic in horses. Last spring my breeding mares took spells. They were suckling colts and working moderately, feeding on sheaf oats and ground oats, with some ground barley mixed. They first took a chill and refused feed, then they lay down and appeared to be in great pain, afterwards bloat up; spell generally lasted two hours, and as soon as pain ceased they began to eat. When work was over (about first of June) we had little more trouble until this spring when it has commenced again. Mares are other wise healthy and in good condition, and have worked a little all winter; have not foaled yet this spring.

Man.

G. S. F.

Ans.—'Colic is a general term, applied to many diseases of the different organs of the abdominal and pelvic cavities, which cause the animal to evince pain in those regions. Your cases are colic from indigestion, probably the result of feeding too much bulky and coarse feed. Instead of feeding oat sheaves exclusively, good hay should be fed twice a day if possible. The way to prevent attacks of colic or indigestion is by a careful and judicious system of feeding. The plan which is generally adopted by owners of large numbers of horses is as follows, and experience teaches that where it is conscientiously adhered to, very few cases of colic occur. Always water before feeding, then feed the hay allowance. Let them eat hay for about twenty minutes before feeding grain. Allow plenty of time for the meal, do not hitch up on the moment the horse is through feeding, but allow at least a half hour for digestion to become well established. It is a good plan to give the horse a few swallows of water after feeding, as a small quantity of water aids digestion, while a large quantity, drunk after a meal, washes the food out of the stomach before it has been properly acted upon by that organ, hence digestion is retarded and colic likely to result. When possible, water horses between meals. Horses require a large quantity of water, and if given often never does harm.

The largest amount of hay or other bulky feed should be given in the evening after the horse has become well rested from his day's work. He will have all night to digest it.

As to the treatment of this form of colic, the first thing to do is to endeavour to stop the fermentation of the undigested food. Turpentine in two ounce doses, given in a pint of raw linseed oil, will generally give relief, but should the pain continue, give in two hours turpentine, one ounce; chloral hydrate, one ounce; (for a full grown animal) well shaken in raw linseed oil, also give injections of warm soapy water into the bowel. Colic is always a dangerous condition and should be treated by a Veterinarian when one can be procured, as the skilled surgeon has many means at his command to treat these diseases with which are not possible with the layman.

FOURTH ANNUAL CATTLE SALE

Comprising males and females. Under the auspices of the

Cattle Breeders' Association of Manitoba

and

Dominion Department of Agriculture

will be held

AT BRANDON

Thursday, May 28th, 1908

Catalogues ready May 1st.

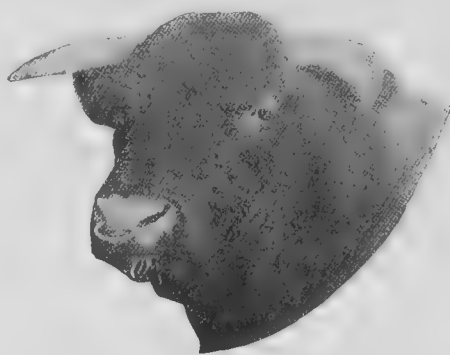
Animals delivered to purchasers' nearest Station in Manitoba for \$2 per head.

Cheap passenger rates on certificate plan from all Stations.

A. W. BELL, Secretary

Winnipeg

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JUNE 5th, 1908

AT 1.30 O'CLOCK

FORTY SHORTHORN HEIFERS AND COWS AND FOUR BULLS

will be sold by PUBLIC AUCTION. They are mostly of purest Cruickshank breeding and include some of the best individuals in our herd. We offer SHOW PROPOSITIONS, SISTERS, HALF-SISTERS and FULL BROTHERS of some of our best show cattle.

Sale under cover, rain or shine. Lunch provided. Special train will leave Toronto over G. T. R. and take you direct to Farm. If you are interested let us send you a catalogue.

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WANTS AND FOR SALE

Advertisements will be inserted under this heading, such as Farm Property, Help and Situations Wanted and miscellaneous advertising.

TERMS—Two cents per word per insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisements inserted for less than 50 cents.

BRITISH COLUMBIA.—Ranches, Farms and Irrigated Fruit Lands, in Kamloops dry Belt. Blocks of ten acres up, all clear, ready for cultivation, produces Peaches, Apricots, Grapes Pears, Apples, Melons, Tomatoes, &c.; unlimited market; easy terms. Apply Strutt & Nash, Kamloops, B. C.

FOR SALE, Italian Bees. Mrs. J. J. Gunn Manitou, Man. 13-5

FOR SALE.—Wanted several parties to purchase interests with me and develop 160 acres Okanagan fruit lands. I bought early and can sell for about one-third of what lands near it are sold. With this low price, easy terms and the number of applicants necessarily limited, would advise you, if you mean business, to write me immediately for particulars. L. J. W. Bick, Elford Street, Victoria, B. C. 27-5

FRUIT LANDS in Kootenay's favored district. Raw and improved lands from \$12 to \$500 per acre. Good markets, prices, crops, climate, scenery, fishing, hunting. Ask list. Ebbutt, Box 704, Nelson B. C. 6-5

FOR SALE—Half Section, six miles from Grand View. Fair buildings, two hundred and ten acres cultivated, all fenced; school across the road open the year round. B. Nevill, Grand View, Man. 6-5

FOR SALE—Avery Undermounted Engine, 30 H. P. Their latest Plough Engine with steel gears, Gould valves, gravity oiler, etc.; 42 x 70 Separator with all latest improvements. Only run 31 days: is in A 1 shape. Very easy terms where good security can be given. Apply 636, 13th Street, Brandon, Man. 20-5

FOR SALE—320 acre Farm, 1 mile from town. 200 acres in wheat. W. H. Morgan, Craik, Sask. 20-5

Lost, Strayed or Impounded

This department is for the benefit of paid-up subscribers to the *FARMER'S ADVOCATE*, each of whom is entitled to one free insertion of a notice not exceeding five lines. Notices exceeding five lines will be charged two cents per word for each additional word, payable in advance.

STRAYED, from my premises on or about June 20, one roan stud, rising two; small bright bay mare, bald face, rising three, medium size. Buckskin saddle pony branded 51 on right shoulder. Liberal reward for recovery. Richard Oliver, Didsbury, Alberta. 6-5

POULTRY AND EGGS

Rates—Two cents per word each insertion. Cash with order. No advertisement taken under fifty cents.

J. R. McRAE, Neepawa, Breeder of White Wyandottes. Prize winning birds and utility stock; also eggs.

BUFF ORPINGTON EGGS, \$1.50 per 15. Good stock. McNaughton Bros., Didsbury, Alta. 13-5

BUFF ORPINGTONS, Barred Rocks, Black Minorcas: seven prizes in 1907. Eggs \$3.00 and \$2.00 setting. Few cockerels left. Pincher Creek Poultry yards, Alta. 25-5

LITTLE COTE Poultry yards, St. Charles, Man. Pure bred barred P. R. Eggs for sale. A special winter laying strain, \$1.50 for 15. A few nice cockerels \$2.00 each; incubator lots. Mrs. Vialoux (nee H. E. Hall). tf

S. C. BLACK ORPINGTON, The best winter layers of the Orpington family. Eggs from my special breeding pen, \$3.00, 2 for \$5.00. 3 firsts at Saskatchewan Poultry Show. Eggs from utility bred pullets, \$2.00, 2 for \$3.00. C. F. Travis, Virden, Man. 13-5

W. J. CURRIE, Lauder, Man., Breeder of White Plymouth Rocks exclusively. Exhibition birds for sale. One hundred birds to select from. Eggs in season. T. F.

RHODE ISLAND REDS and Mammoth Buff Rocks, nine entries, eight prizes Manitoba's largest shows, 1908. Eggs \$1.00 up. Fine Red Cockerels, \$1.50. J. Buchanan, Oakville, t.f

PURE BRED Barred and White Rock Eggs, \$1 setting, \$6 per 100 eggs. Thos. Common, Hazelcliff P. O., Sask. 6-5

PURE BRED Single Comb Buff Orpington Eggs, \$1.50 for 13. Mrs. W. H. Read, Nanton, Alberta. 6-5

EGGS FOR SALE, from pure bred Barred Rocks. Grand sire and sire of present head of stock imported birds. Eggs \$1.50 per setting. Eli G. Roberts, Bagot, Man. 27-5

FOR SALE, White Wyandottes Eggs—Massie, Dunstan strain: Special winter layers. \$1 per setting. Alex. Porter, Alexander, Man. 6-5

BARRED PLYMOUTH ROCKS, bred to lay, bred for utility and exhibition. Pen No. One headed by a cockerel which won first prize at Chicago Winter Show in January. At recent poultry show in Winnipeg my Rocks won first prize for utility breeding pen, all breeds competing; also second and fourth cockerel. Eggs for sale at \$3 per 26. For further information write—R. M. West, Glenboro, Man. 20-5

EGGS FOR HATCHING—S. C. Buff Orpingtons. Breeding pen good, square, buff stock, headed by cockerels direct from Cook's stock. \$2.00 per 15; \$8 per 100. E. Lowrie, Bagot, Man. 13-5

C. W. ROBBINS, Chilliwack, B.C., breeder of laying strains, Buff Orpingtons. Eggs, \$2, 15. tf

BUFF ORPINGTONS exclusively: winners at Michigan, Charlotte and Strassburg—Eggs, \$1.00 setting, \$5.00 one hundred. Elmer Sells, Strassburg, Sask.

BREEDERS' DIRECTORY

Breeder's name, post office address, class of stock kept, will be inserted under this heading at \$4.00 per line per year. Terms cash strictly in advance. No card to be less than two lines or more than three lines.

POPLAR PARK HEREFORDS, A number of young cows, heifers, and bulls now for sale from this famous herd at low prices. Buff Orpington Eggs. J. E. Marples, Deleau, Man. T.F.

A. & J. MORRISON, Glen Ross Farm, Home wood, Man., Clydesdales and Shorthorns. 13-11

GEO. SWALES, Holmfild, Man., breeder of Red Polled cattle. Young stock for sale.

POLAND CHINA PIGS. Young stock for sale. Stringency prices. W. J. Boughen, Valley River, Man. 17-6

A. J. MACKAY, Wa-Wa-Dell Farm, MacDonald, Man., breeder of Shorthorn Cattle and Leicester sheep.

MERRYFIELD FARM, Fairview, Thos. Brooks, breeder of Clydesdales and Shorthorns. Box 134, Pense, Sask. 30-10

STRONSA STOCK FARM—Well-bred and carefully selected Shorthorns and Berkshires. David Allison, Roland, Man. 13-11

SHEPHERD PONIES and Hereford cattle, finest in Canada. Write or come and see them. J. E. Marples, Poplar Park Farm, Deleau, Man. T. F.

BERKSHIRES.—Gold Medal Herd, Neepawa, Manitoba. Address J. A. McGill. 24-4

JOHN GARDHOUSE & SONS, Highfield P. O. Ont.—Breeder of Scotch and Scotch-topped Shorthorns, Lincoln and Leicester sheep and Shire horses. T. F.

JAMES WILSON, Grand View Stock Farm, Innisfail, Alta.—Breeder of Shorthorns. 13-6

R. A. & J. A. WATT, Salem, Elora Station, G. T. and C. N. R.—Champion herd of Toronto and New York State Fairs, 1905, also Grand Champion females, including both senior and junior Honors at both fairs. Write your wants. 31-12

BROWNE BROS., Ellisboro, Assa.—Breeders of Polled Angus cattle and Berkshire swine. Stock of both for sale. 13-3

WOODMERE FARM,—Clydesdales, Shorthorns and Yorkshires. Pigs at 8 weeks, f. o. b. Neepawa, \$8 apiece. S. Benson. 24-4

GEORGE LITTLE, Neepawa, Man.—Shorthorns of best Scotch type. 24-4

CLYDESDALES.—A choice collection of breeding stock always available. Jas. Burnett, Napinka, Man. 30-1

ASHCROFT, W. H. NESBITT, Roland, Man. Clyde and Hackney Mares and Stallions, work horses in carlots, Ayrshires. Our Motto, Live and let Live. 6-2

D. SMITH, Gladstone, Man., Shires, Jerseys and Shorthorns, Yorkshire Hogs and Pekin Ducks.

BEN MORE, reg. Jersey herd—P. W. Reid, proprietor. Enquiries solicited. Hill P. O., Vancouver Is., B. C.

H. C. GRAHAM, Kitscoty, Alta.—Shorthorns, Scotch Collies and Yorkshires, for sale. 1-4-09

A. D. McDONALD, Sunnyside Farm, Napinka, Man. Berkshires and Yorkshires from prize winning stock; all ages; write for particulars.

FOSTER AND LYLE, Lyleton, Man.—Imported and homebred Clydesdale and Shorthorns. Correspondence solicited. 15-7

LAME MARE.

During the winter of 1904 I noticed my mare favor her left hind leg when leaving the stall. Last winter she went lame on this leg. My veterinarian measured her hocks, but could find no difference, but advised me to blister, which I did without results. Her left hip has become lower than its fellow. She now generally starts off lame. Sometimes she does not, but after travelling a variable distance is liable to go very lame for a few rods. When standing she favors the leg. R. H.

Ans.—The symptoms indicate an occult spavin. This is a disease of the true hock joint and seldom shows any enlargement. Treatment is seldom successful. It consists in firing and blistering the hock. It requires a veterinarian to operate.

UNTHRIFTY PIGS.

1. Please inform what caused pigs bred from a pair of young Berkshires purchased from a breeder as pure-breds, to grow so poorly, as they were well fed, and at eight months old weighing about 120 to 130 lbs. each.

2. Do you think the next litter will do better?

3. Do you consider Chester White a better breed? A. H.

Ans.—1. Possibly the sow was bred to farrow at too young a age and had not sufficient milk to give the pigs a good start. The parents may be of too small and short type to produce growthy stock. The lengthy strong-boned class of Berkshires make rapid growth, and weigh well at any age. Pigs of any breed, if kept confined and deprived of will get fat without growing much, and, owing to accumulation of fat about the heart and lungs, are liable to get wheezy and cease to thrive and grow.

2. If sow is allowed to run out freely for exercise while carrying next litter, and the pigs also get plenty of exercise, they may do well.

3. No.

SWELLING AROUND HEIFER'S EYE.

I have a heifer, coming two-years-old, that has a soft, pulpy swelling around the left eye, and from that up to the root of the ear. I cauterized her horns when she was about a week old. Some time after this, the swelling started around the horn, but did not extend any further until last summer, when it gradually extended down towards the eye, and left very little swelling around the horn; but what little horn there is, is loose. I had a veterinarian examine her. He put his knife into it to the bone but there was nothing came out. He thinks it was the cauterizing that caused it. What do you think was the cause, and what treatment would you advise? A. S.

Ans.—It is possibly the result of the caustic in the dehorning process being allowed to run down upon the skin. A veterinarian making a personal examination is in a better position to arrive at a correct diagnosis than anyone reading a description, and is also in a better position to advise or prescribe as to treatment. The case is uncommon.

ECZEMA IN YOUNG PIGS.

My young pigs two weeks old are dying off. A scab develops all over their bodies, they turn very weak and die. They are in a warm lumber building, plank floor, lots of straw. Mother is fed on wheat chop, soaked; gets salt and ashes and slops. Sow and pigs are in splendid shape, could not look better.

Sask. V. T. P.
Ans.—Your young pigs had an attack of a certain form of "Eczema" called technically "Impetigo" and is said to be caused by exposure to cold, lack of shelter, filthy pens, spoiled food and insufficient nourishment. But so far as we can see none of these conditions prevail in your case, probably there may be disease producing germs in the straw used for bedding, which has been produced the disease in your pigs. The treatment is washing with soap and water, and the application of a lotion consisting of sugar of lead, 1 ounce; creolin, 2 drams to a quart of soft water. Apply several times a day. In older pigs a laxative of epsom salts should be given.

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—THE PERFECT NUMBER—

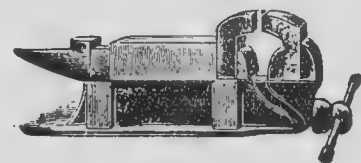
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Sizes 1 to 5, delivered to any Post office in Canada for \$2. Write

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FARMER'S ANVIL.



No. 2.—Anvil with Vice Attachment.

THIS ANVIL WEIGHS 60 LBS. AND HAS blacksmith's vice, carpenter's vice, pipe vice and drill attachments.

This is a workshop in itself and will pay for itself twice over in a short time. No farmers home complete without one. PRICE \$7.00. Order to-day. Send for our catalogue of GARDEN TOOLS.

JOHNSTON & SCOTT

411 Main St., Winnipeg, Man.

THE BARITONE'S CONFESSION.

AN INCIDENT SHOWING THE IMPORTANCE OF PHRASING IN POETRY AND MUSIC.

The Amateur Baritone surprised a house-party the other evening by singing with fervor "Oh, I am full." There was a mild shock for an instant, but he gathered breath and continued "of love for thee." He phrased badly. Like hundreds of musicians he was unable to appreciate that in music, as in poetry, there are words, phrases and sentences. Phrasing is one of the tests of musicianship. In piano playing the phrases are defined in various ways, but broadly by the momentary slowing or quickening of the tempo. The ordinary mechanical piano player, human or pneumatic, phrases indifferently, if at all. But the Angelus, the King of Piano players, has an attachment called the phrasing lever which makes it possible to instantaneously retard or quicken the music. If the operator has the true musical temperament, he can procure from the Angelus, effects which the greatest pianist could not surpass. This amazing piano player is being installed by Messrs. Gourlay, Winter & Leeming as an interior part of their splendid piano, the Gourlay. Every musician in Canada knows that the Gourlay is in the front rank of Canadian pianos. The Gourlay-Angelus is a combination of the finest piano in Canada with the finest player in the world. It is an eminently artistic combination and can produce effects which must satisfy the most artistic musician. There is nothing cheap or common about the Gourlay and nothing mechanical about the Angelus. The Gourlay-Angelus is worth seeing, and better still, is worth having. Write for catalogue and price list to Messrs. Gourlay, Winter & Leeming, 188 Yonge Street, Toronto.

Don't Neglect a Cough or Cold

IT CAN HAVE BUT ONE
RESULT. IT LEAVES
THE THROAT or LUNGS,
OR BOTH, AFFECTED.

**DR. WOOD'S NORWAY PINE
SYRUP IS THE MEDICINE
YOU NEED.**

It is without an equal as a remedy for Coughs, Colds, Bronchitis, Sore Throat, Pain in the Chest, Asthma, Whooping Cough, Quinsy and all affections of the Throat and Lungs.

A single dose of Dr. Wood's Norway Pine Syrup will stop the cough, soothe the throat, and if the cough or cold has become settled on the lungs, the healing properties of the Norway Pine Tree will proclaim its great virtue by promptly eradicating the bad effects, and a persistent use of the remedy cannot fail to bring about a complete cure.

Do not be humbugged into buying so-called Norway Pine Syrups, but be sure and insist on having Dr. Wood's. It is put up in a yellow wrapper, three pine trees the trade mark, and price 25 cts.

Mrs. Henry Seabrook, Hepworth, Ont., writes: "I have used Dr. Wood's Norway Pine Syrup in our family for the past three years and I consider it the best remedy known for the cure of colds. It has cured all my children and myself."

ERYTHEMA.

Mare's fore fetlocks swelled. Swelling extended upwards and involved the knee. I clipped the leg, which is tender and a yellowish, sticky substance exuded.

J. W.S.

Ans.—Purge with 8 drams aloes and 2 drams ginger. Follow up with 4 drams hyposulphite of soda, twice daily. Dress the leg, three times daily, with a solution of corrosive sublimate, 15 grains to a pint of water.

KILLING WILD OATS.

On the piece of land in which I intend to sow oats, I have double disced last fall and harrowed this spring; disced plowed in fall of 1906.

Will it be advisable to wait till the weeds get a start, then double disc again and sow without plowing at all? I am afraid that if I plow it I will turn up a fresh lot of wild oats.

How long should you wait before sowing oats?

Do you need a special set of drag harrows to harrow the land after the grain is up about three inches?

Man. L. P. O.

Ans.—Yes, the plan is quite sensible—see last week's ADVOCATE. The longer one waits after land becomes fit for sowing oats, the smaller the crop is likely to be. The harrowing this spring should have killed some of the oats and started a fresh growth. Then, just as soon as there is a showing of green, the disc should be started; and by two discings and a stroke of the harrow all the oats that germinated this spring should be pretty well killed. In a season like this on land that is ordinarily early and has been cropped, oats should be sown by the fifteenth of May but barley might be sown ten to twenty days later.

Heavy harrows tear out quite a lot of the crop, especially if the seed bed is deep and loose. Lighter harrows and especially those with sloping teeth are less injurious.

UNTHRIFTY MARE—KIDNEY TROUBLE.

1. Mare began to fail last fall. She is now very thin; tires easily; sweats in stable, and pants heavily when exercised. She eats well. She is fed on hay, oats and boiled beans.

2. Lost a mare last fall, and a post mortem revealed the kidneys affected. A young mare has been sick, and I think it is from kidney trouble. What is likely to cause this?

P. A. L.

Ans.—1. Get your veterinarian to dress her teeth. Give her a laxative of 1 pint raw linseed oil. Then take 3 ounces each of sulphate of iron, gentian, ginger and nuxvomica. Mix and make into twenty-four powders. Give a powder three times daily. Feed well on hay, oats and bran, with a little linseed meal, and a carrot or two daily. Feed no more beans. Give regular gentle exercise.

2. You give no particulars as to the appearance of the kidneys after death, nor the symptoms before death, hence I can have no idea what the trouble was. Horses seldom suffer from chronic disease. Impure food or water are liable to cause kidney trouble, but from want of particulars I am unable to diagnose in this case.

BLOODY MILK.

As I am a subscriber to the FARMER'S ADVOCATE, I thought I would take the liberty of asking you a question. I have three cows which give bloody milk. I suppose it is the garget. Could you send me a prescription that would cure them?

W. B.

Ans.—If the cow is giving milk freely and there is no inflammation in the udder, it is not garget. If there is inflammation, soreness, and little or no milk can be drawn from the quarter or quarters, it is probably garget, treatment for which is given in answer to similar question in this issue. If the above conditions are not present, the bloody milk is probably the result of a rupture of the tissues of the teat or the udder, due to a bruise, or to severe pressure of the hands by the milker, and with gentle milking, and oiling the quarter with goose oil or lard, and giving a teaspoonful of saltpetre in feed twice a day for a week, the trouble may pass away.



Why we send
a Sample Free

The reason why we make such a feature of our Free Sample offer in all the advertisements of Amatite is because we realize that Amatite itself is its best advertisement.

As soon as a practical man sees Amatite, he recognizes its superiority. The practical roofing buyer realizes, in the first place, that he can judge a roof's wearing qualities pretty well by the weight of it to the square foot. A thin, flimsy fabric can not possibly wear so long as a thick, heavy one.

Amatite weighs twice as much as other roofings of its price, and is tough and strong and reliable. While we



BARN AT PARK RIDGE, N. J., COVERED WITH AMATITE

could say this in our advertisements without convincing people, the sample itself will prove it instantly.

Another important thing which the sample shows is the real mineral surface of Amatite. This mineral matter takes all the wear of the weather and receives the brunt of wind and storm. Being mineral, it is naturally not affected by these things, and accordingly does not wear out as does paint or coating which is ordinarily used. Most ready roofings have a smooth surface of

Amatite is laid there is positively no care required of any kind. It is permanently weatherproof without paint.

No careful buyer would dare neglect the painting of the ordinary roofing, and people who are careful in such matters will be the ones who will most appreciate the argument that Amatite needs no paint.

You can't appreciate this mineral surface of Amatite roofing unless you see it, and that is our second reason for being so anxious to send you the Free Sample.

Amatite has all the usual advantages of a ready roofing, in addition to its special advantages. It is easy to lay, as it is sold in handy rolls of 110 square feet, ready to be laid on the roof. No skilled

labor is required and no special tools are called for; everything that is necessary in the way of nails and cement for laps is furnished in the center of each roll without extra charge. The nails have very large heads, which take the place of the usual tin caps; the latter, we have found, rust so easily that they do not last very long, and so we provide the large headed nails which are easier to use.

If there is any chance of your needing ready roofing within the next year or so, send your name and address to our nearest office and you will receive a sample by return mail. Then you can see



DENSMORE'S CASINO, FAIRLEE, VT., COVERED WITH AMATITE.

felt which has to be covered with a heavy paint or coating.

A good many roofings are painted once at the factory, so that when they are laid they will last for a couple of years without the paint. But after that time it is absolutely necessary to give them a new coating every year or two. If the coating is extremely heavy and thick, it may last more than two years; but the paint will be more expensive.

But Amatite having this mineral surface, needs no paint whatever. After

for yourself what we mean by the mineral surface, and you can get some idea of the strength and durability of Amatite.

At the same time we will send you a handsome little booklet which shows many roofs where Amatite has been used with great success. Some of these may be right in your own locality. Like the sample, this is sent without charge. Address nearest office, THE PATERSON MANUFACTURING Co., Ltd., Canadian Agents, Toronto, Montreal, Winnipeg, St. John, Halifax.

**INSURE YOUR HEALTH
AND COMFORT**
on stormy days
by wearing a
**TOWER'S
FISH BRAND**
**WATERPROOF
OILED
CLOTHING**
Clean - Light
Durable
Low in Price

**"SAFE-LOCK"
METAL SHINGLES
WEAR
WELL**

Mr. Banford of Hainerville, Ont., writes on Jan. 19, 1907, "The roofing I bought from you in 1900 has given perfect satisfaction... I am well pleased... just as bright as when it was put on, no rust, no holes, no leakage. I am satisfied there is no better shingle."

Residence of Mr. D. Zurbrigg, Tavistock, Ont. Roofed with "Safe Lock" shingles.

What Mr. Banford says is true. There is no better shingle. Interlocks on all four sides, no chance for leakage. Nail holes are concealed. No raw edges of any kind exposed. Can be used on pitches from 2-in. per foot up. Send to-day for our prices and descriptive matter free.

ROOFERS to the FARMERS OF CANADA

Clare & Brockest, Winnipeg

Just Mention the Farmer's Advocate
when writing to Advertisers.

Catalogs and Booklets

MUST HAVE STYLE AND DRESS

You may want something of this nature. Let us build it for you.

You will find our prices as reasonable as our service is excellent.

FARMER'S ADVOCATE OF WINNIPEG, LIMITED



The EDISON PHONOGRAPH

THE most wonderful thing about the Edison Phonograph is its versatility. It is equally good in entertaining a crowd of friends or in helping you pass a few hours by yourself. It has just as many moods as you have. It is just as good in rendering a plaintive ballad as it is in rendering a lively waltz.

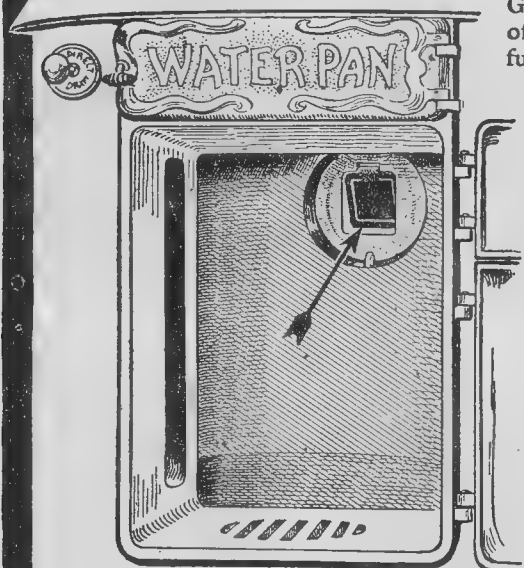
The new model with the big horn is now at all dealers'. You should see and hear it or write for a descriptive booklet. **WE DESIRE GOOD, LIVE DEALERS** to sell Edison Phonographs in every town where we are not now well represented. Dealers should write at once to **National Phonograph Co., 100 Lakeside Ave., Orange, N. J., U. S. A.**



EDISON

PHONOGRAPHS sold on easy payments. Largest stock of records in the West. We sell all makes of Talking Machines, Records, Pianos, Organs, Musical Instruments. Catalogues free. **WINNIPEG PIANO CO., 295 Portage Ave., Winnipeg.**

Heading off a Risk



Gas is liable to puff out of the front door of any furnace unprovided for gas escape.

"Sunshine" Furnace has Automatic Gas Damper directly connected with smoke-pipe. Gas pressure sways damper sufficiently for it to escape up chimney (see illustration), but heat doesn't escape.

What does "Sunshine" Gas Damper mean to "Sunshine" Furnace? Means protection to the furnace parts against evil effects of gas.

What does "Sunshine" Gas Damper mean to "Sunshine" householder? Means furnace can be operated without fear as to "puffing" gas; furnace can be left without doubt as to whereabouts of gas.

What does "Sunshine" Gas Damper mean to "Sunshine" coal account? It means, instead of owner with "ordinary furnace" fear having to keep check-draft indefinitely closed to "let off" gas—when there's two-thirds parts of heat-energy to one part of gas passing up chimney—draft can with all safety be opened, and coal saved for another day's duty.

4

London
Toronto
Montreal
Winnipeg

McClary's

Vancouver
St. John, N.B.
Hamilton
Calgary

FLAX WILT.

Can you tell me anything about treating flax seed for wilt? What is used, and how it is applied?

Flax cannot be pickled like wheat, as it would stick together.

I think the North Dakota Experiment Station issued a bulletin on flax wilt. How could this be secured?

Sask

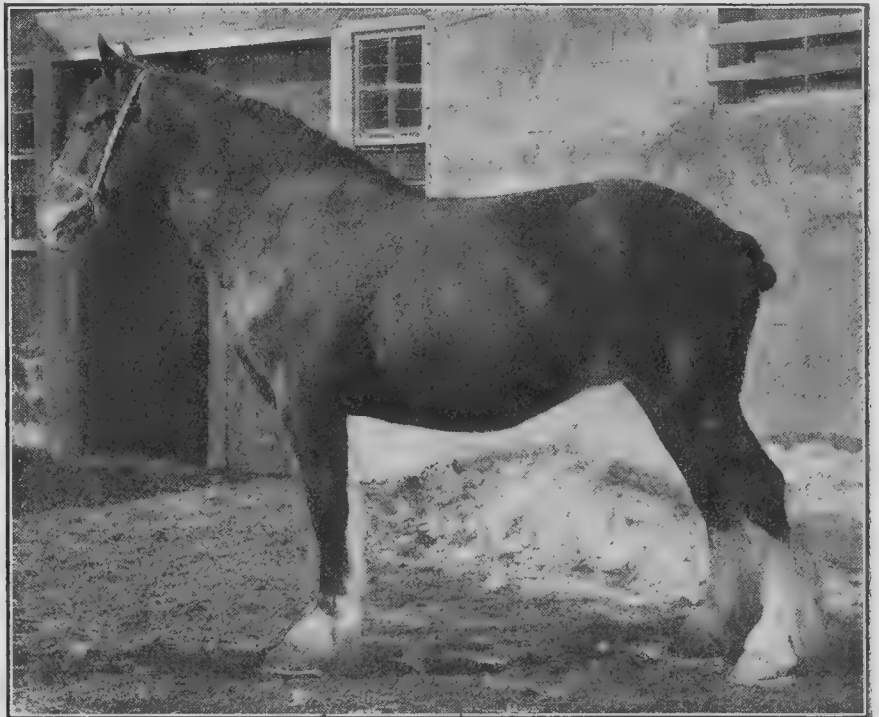
H. W. T.

Ans.—We are not aware that anyone has ever discovered a treatment of seed that would make flax immune to wilt. Prof. Bolley, of North Dakota, has done considerable investigating work with flax, and advises rotating crops to avoid wilt, and also suggests that threshing where the straw and chaff will not blow over cultivated land, might be beneficial. Prof. Bolley says: "Flax-sick" soil is occasioned by the presence of a fungus, "Fusarium lini" Bolley, which may be introduced into new soil areas by means of the seed flax, and when once in the soil, propagates with rapidity. Flax plants are destroyed by it at all ages of growth, from seed time to maturity. About four years cropping to flax suffice to destroy the usefulness of the soil for the growth of the crop if disease-bearing seed is used.

Members of the provincial government of Alberta recently suggested that a polo team from Calgary and district should be sent to compete in the Olympic games, but on consideration Major Ross and other members of the Calgary Polo club thought that they could not at present send a team to England that would stand any chance of succeeding. The main difficulty would be to get the ponies shipped across to the old country, where they ought to have some months' practice before taking part in an important match. The members regretted that under present circumstances it would be impossible to send a representative team to take part in the games.

* * *

For the fiscal year ending with last month, Canada's total trade reached the record figure of \$638,390,291, an increase of \$25,818,940, over the corresponding twelve months of 1906-07. The imports for the year totalled \$358,373,685, an increase of 18,008,940, and the exports totalled \$280,016,606, an increase of \$7,810,000. The customs revenue for the year increased by \$5,314,281, the total being \$58,320,737. The largest increase in domestic exports was in agricultural products, which totalled \$66,069,939 as compared with \$49,544,327 for the preceding twelve months. Exports of manufactures totalled \$28,507,124, an



FLOSHEND PRINCESS (IMP)
Champion Clydesdale Mare at the Spring Horse Show, Toronto.

"The common practice of seed exchange and the further fact that no varieties of special merit have ever been generally recognized have in themselves been elements sufficiently potent to account for the general distribution of the disease, even though it were not aided by wind, water, and other natural agencies."

The bulletin referred to may be had on application to the Experiment Station, Fargo, N. D.

GOSSIP

The estimated product of wheat in the United Kingdom in 1905 was 32,321,066 cwt., in 1906, 32,474,164 cwt., and in 1907, 30,284,567 cwt. The total imports of wheat and wheat flour into the United Kingdom were: In 1905, 114,226,589 cwt.; in 1906, 112,675,900 cwt.; and in 1907, 115,637,351 cwt. Of the imports during 1907, 33,647,669 cwt., came from the United States, 22,586,711 cwt., from the Argentine, 10,900,300 cwt., from Russia, 18,269,600 cwt., from India, 15,022,367 cwt., from Canada, 8,506,700 cwt., from Australia, and 6,704,004 cwt., from other countries.

increase of \$2,228,075. Exports of the mine totalled \$39,177,133, an increase of \$3,030,993. Fisheries exports remained practically stationary, totalling \$13,867,368.

A large decrease is shown in exports of animals and their produce which reached only \$55,101,260 last year as compared with \$67,877,104 for the preceding twelve months. Exports of the forest totalled \$44,170,470, a decrease of \$1,652,702. For last month the imports totalled \$30,052,232, a decrease of \$6,789,844, and the exports amounted to \$18,572,085, an increase of \$2,442,080.

PERCHERONS SELLING WELL.

Mr. R. P. Stanley the importer and breeder of Percherons and Hackneys at Moosomin, Sask. has left for the States to get a new lot of the best Percheron Stallions he can buy. Trade has been brisk with Percherons from the Maple View stud. In a recent letter Mr. Stanley says. "On April 16th I sold to Mr. John Paul of the Moosomin district the dapple grey Percheron stallion "Suez King" 46575. "Suez King" is rising three years and in ordinary condition weighs 1900 lbs. but will mature into a 2200 pound horse. He is a colt of very best quality of bone to carry his weight and with feet that will outwear iron.

He is the kind that gets those big draft horses seen in such shows as Ringling's.

Mr. Paul is an old horse man in the Moosomin district having been in business nearly twenty years and got his early experience in the horse barns of Scotland. Before selecting "Suez King" he looked at many others and brought several of his customers to see his choice before finally buying. Horse breeders are looking for more weight all the time.

"On the 18th I made another sale of a good horse to Mr. E. W. Kitenshon, of Roselta, Sask.

Three years ago I sold Mr. Ketenshon a gray stallion "Orange" which has proved so good a breeder that the Percherons are in demand in that district. This spring Mr. Ketenshon took a black, "Marmitou" (48761) He is one of those deep, wide, kind weighing over 2000 pounds, a draft horse all over with style and action that make every one wonder. His breeding is of the best tracing through the oldest Percheron families and will be sure to make a very impressive sire. The farmer in the Roselta district should feel elated with the prospect of so good a sire for their use."

A SPLENDID SPRING SHOW AT ROLAND.

EDITOR FARMER'S ADVOCATE:

April 24th marked a new and important epoch in the Agricultural interests of the Roland, Man., district, it being the date of the first show held under the auspices of the Roland Agricultural Society.

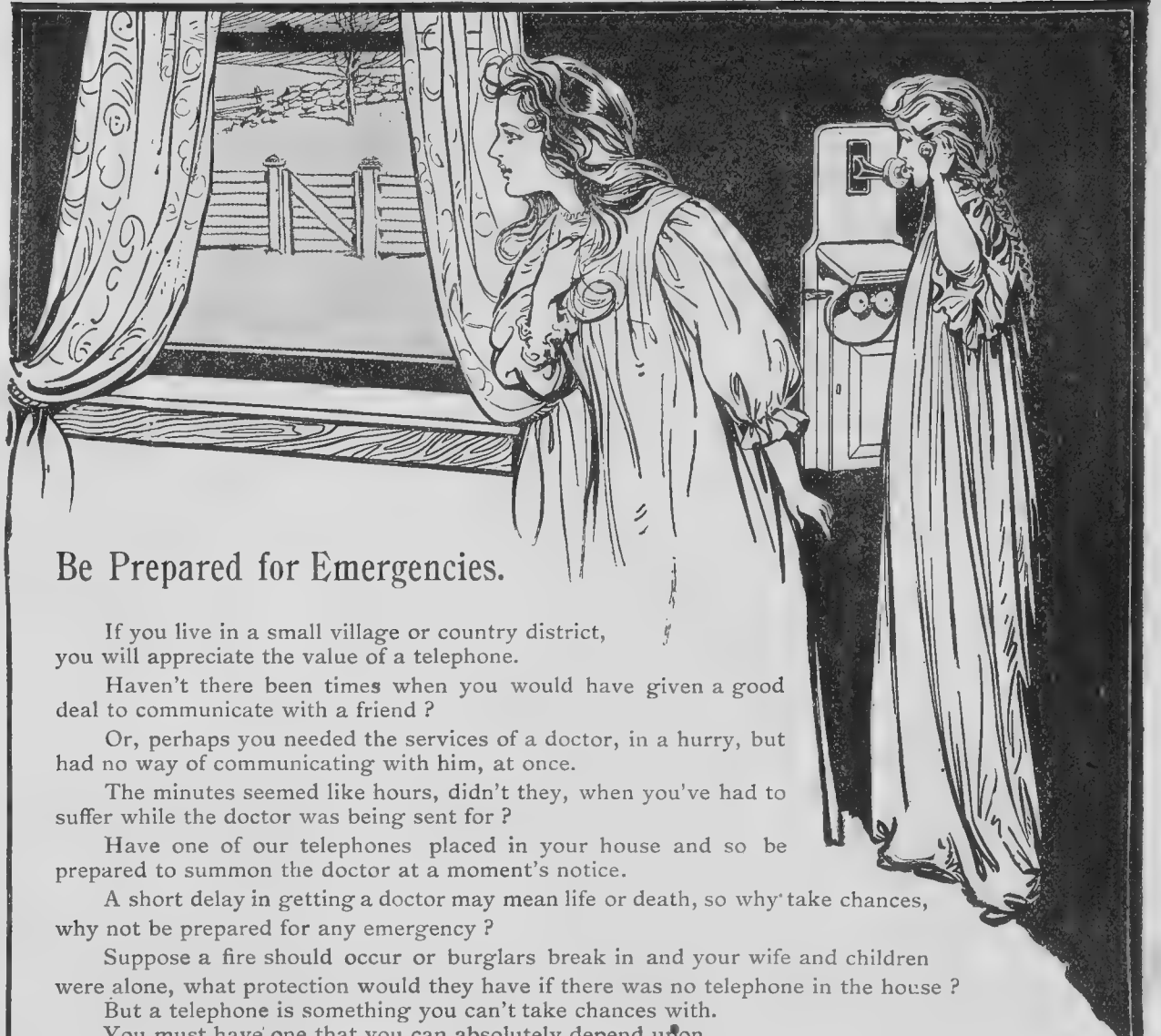
The Roland district possesses many distinctive features creditable to itself as well as to the province generally, notably, is the great unanimity that prevails between town and country in all matters which tend to improve the condition of both. This was very manifest in the loyal support, both financial and otherwise, which was contributed by each and tended largely to make the first show a success.

Though the society was organized on the 9th inst. with the election of a board of directors composed of G. Ross H. Lovee, Dr. Welsh, A. Graham, P. Wright, A. Allison, M. Sutton, Jas. Stocks, Jas. Hodgson, J. L. Parkinson success was assured in holding a spring show which was essentially a Horse show, this being demanded by the public. To use a characteristic western phrase the board "got a move on," with the result that in two days bills were out offering very liberal prizes and in two weeks a successful show was held though the day was far from propitious, raining as it did throughout which prevented many from attending as well as several exhibitors from exhibiting.

There were representatives from Thornhill, Morden, Miami and Homewood of the noble horse. These added very much to the creditable showing made by the local district. Many of the classes were well filled with typical representatives of their respective breeds. It is doubtful if any other district in the province can make such an excellent showing of horses as can the Roland district. It must be remembered that from Roland district many of the very best prize-winners at Winnipeg Industrial are drawn. Therefore it was no difficulty for Prof. Rutherford of the M. A. C. who made the awards (assisted by principal Black) to find his ideal.

Messrs Graham, T. Laurie, W. Hardy were the principal exhibitors in the Clydesdales which predominate in the district while Messrs H. Lovee, G. P. Lovee, D. Maloney and Dr. Welsh brought forth some fine animals of the lighter breeds.

Great interest was centered in the aged Clydesdale stallion section. Speculation was rife as to the result, but, Vigorous owned by the Pomeroy Association was an easy winner in a strong class of four. Vigorous, appearance for the first time in a show-ring in the "West" fully sustained the expectations of his many admirers especially was this true when he defeated for best horse of the show the well nigh invincible, German Coach Stallion, Sperber; a horse considered by many to be symetrically perfect with faultless



Be Prepared for Emergencies.

If you live in a small village or country district, you will appreciate the value of a telephone.

Haven't there been times when you would have given a good deal to communicate with a friend?

Or, perhaps you needed the services of a doctor, in a hurry, but had no way of communicating with him, at once.

The minutes seemed like hours, didn't they, when you've had to suffer while the doctor was being sent for?

Have one of our telephones placed in your house and so be prepared to summon the doctor at a moment's notice.

A short delay in getting a doctor may mean life or death, so why take chances, why not be prepared for any emergency?

Suppose a fire should occur or burglars break in and your wife and children were alone, what protection would they have if there was no telephone in the house?

But a telephone is something you can't take chances with.

You must have one that you can absolutely depend upon.

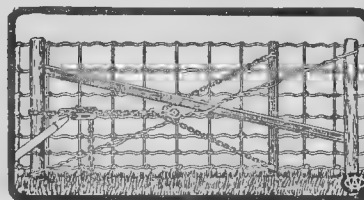
Send us your address and we will tell you all about a reliable telephone that is easily installed at a small cost.

Northern Electric & M'fg. Co., Ltd.

Montreal and Winnipeg.

No. 303

Use address nearest you.



HOW TO BUILD A GOOD FENCE

Everyone intending fence building should send for our folder on Erecting Fences. It's full of valuable information on fence building, tells how to erect woven wire fencing quickly and substantially, describes the manufacture of fence wire and has an article quoted from bulletin of U. S. Dept. of Agriculture on concrete post making, showing how these durable posts can be economically made at home. Don't fail to write for a copy. It's free.

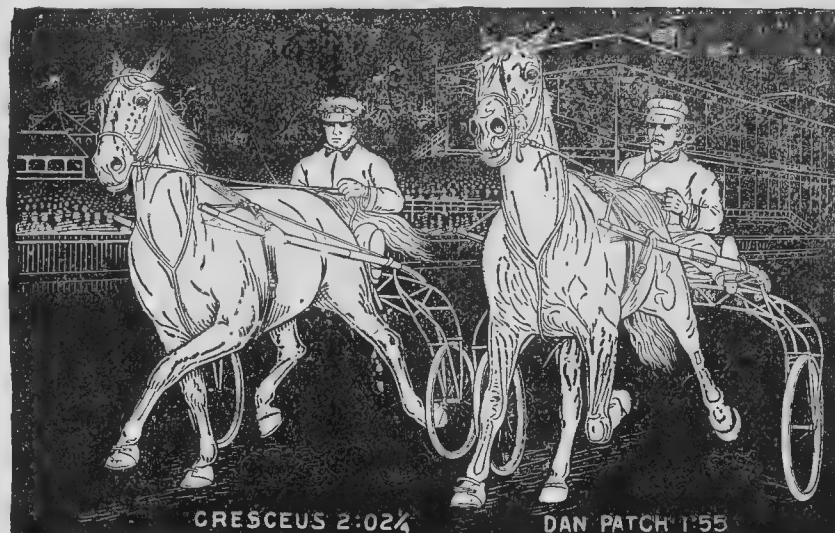
THE BANWELL HOXIE WIRE FENCE CO., Ltd.

Dept. M Hamilton, Ontario.

Winnipeg, Manitoba.



INTERNATIONAL STOCK FOOD COSTS ONLY



CRESCUEUS 2:02 1/4

DAN PATCH 1:55

This Beautiful Picture in 6 Brilliant Colors Mailed to You FREE

A Marvellous Picture of 2 World Champions Dan Patch, 1:55, The Pacing King Cresceus 2:02 1/4, The Trotting King

We have large colored lithographs of our World Famous Champion Stallions, Dan Patch 1:55 and Cresceus 2:02 1/4, in an exciting speed contest. It is 16 by 21 in. and shows both horses as life-like as if you saw them racing. You can have one of these large and beautiful colored pictures of the two most valuable harness horse stallions and champions of the world, absolutely free. We prepay postage. £37 This cut is a reduced engraving of the large colored lithograph we will send you free.

WRITE AT ONCE

1st, Name the Paper in which you saw this offer.
2nd, State how much live stock you own.

International Stock Food Co.

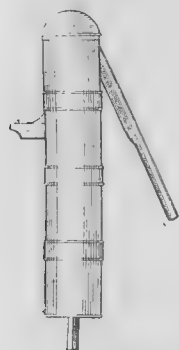
TORONTO, CANADA

3 FEEDS FOR ONE CENT

Frank G. Simpson. A.T. Hephworth.

GRAIN CONSIGNMENTS

SIMPSON - HEPWORTH CO. LTD.
A Strictly Commission House, Devoted to Selling Grain of all Kinds for Farmers.
Mail Shipping Bills P. O. Box 470. 520 Ashdown Block, Winnipeg

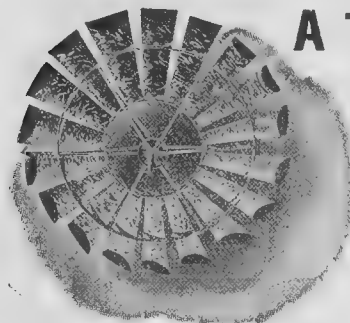


T. H. MAXWELL

49 Margaretta St., Winnipeg
Artesian Well Driller and Pump Manufacturer

Wood Pump Heads fitted for **\$5.00** each.
1 1/4 in. and 1 1/2 in. Iron Pipe

Our own Patent Frost-proof Force Pump will go into a 5 inch well. Packing box below frost. We fit these pumps to any depth of well. Our pumps are well known to be the best and are made in Winnipeg. Phone 6596



A 12 ft. STAR WINDMILL

with Shafting, Grinder, Pulley, Cuy Rods

Only 100 Dollars

Any mechanic or handy man can erect one.
Printed instruction with every mill.

Guaranteed first-class, or money refunded.

CHICAGO AERMOTOR REPAIRS in stock.

Our Wood and Iron Pumps are unequalled

Catalogue Free. Address—

BRANDON PUMP and WINDMILL WORKS

Dept. A.

BRANDON, Man.

Mention the Farmer's Advocate when writing Advertisers

Take Care of the Chicks

It is said there is a mortality of 50% among young chicks every spring. This means a tremendous loss. Think how great the poultry industry would be if even a fraction of these lost chicks were saved to become egg producers or fat market fowls. *Care and proper feeding* at the time of hatching and during the first days of the chick's life are absolutely essential to its well-being.

Begin as soon as the chick takes food regularly and give a little of Dr. Hess Poultry Pan-a-ce-a once a day in soft food. If you do this and chicks are kept dry and warm, your losses will be very slight.



DR. HESS Poultry PAN-A-CE-A

was formulated by Dr. Hess (M. D., D. V. S.) for the express purpose of meeting and overcoming the hundred and one ills that perplex the poultryman. While it is beneficial in many ways and also destroys germs, its greatest worth is as an assistant to the digestive organs. Its use makes the largest possible per cent of food available for healthy growth. Hence chicks mature early, hens lay many eggs, and market birds fat quickly. Endorsed by the most prominent poultry men in the United States and Canada. Costs but a penny a day for 30 hens.

Sold on a written Guarantee.

1 1/2 lbs. 35c. 5 lbs. 85c.

12 lbs. \$1.75. 25 lb. pail \$3.50.

Send two cents for Dr. Hess 48-page Poultry Book, free.

DR. HESS & CLARK,
Ashland, Ohio, U. S. A.
INSTANT LOUSE KILLER KILLS LICE.



action. When we consider Sperber's show-ring record, it is a matter for congratulation that the Roland district possesses a horse of such excellent quality as is to be found in Vigorous. T. Laurie won 1st for best Clydesdale brood mare, Graham 1st on draft team, defeating the Winnipeg prize-winning team of T. Laurie. Graham's Queen Ann which was second at Winnipeg last year, was Grand Champion mare. She has developed into a beautiful mare truly representative and in all probability will add other laurels to her excellent show-yard record.

The Percheron's were represented by Benzoine, owned by the Roland Syndicate and several of his progeny—all typical animals.

The coach horses had at their head Sperber of International Show-yard fame, already referred to, with several of his get which were worthy descendants of a worthy sire, as well as other lesser lights. Several good farm teams were out, 1st prize going to A. Hamilton for a very fine and useful team.

Therefore, notwithstanding it was their first show, the weather unfavorable, and the judges performing their work very hastily, the directors have great reason to congratulate themselves on the success attending their efforts to assemble together the best representatives of the cattle (of which there were only a few) and horses of the neighborhood for purposes of comparison.

J. L. P.

but if these are not at hand, flour may suffice. Do not use dry dirt for this purpose, for that would be simply inviting tetanus. Large arteries and veins should be ligated, that is, tightly bound so as to compress them and shut off the flow as much as possible. The wound should then be thoroughly cleansed with an antiseptic solution, such as two per cent carbolic acid, or bichloride of mercury (1-1000). If these are not obtainable use salt and water. Small and superficial wounds may heal with no other treatment than a thorough cleaning each day with one of the above antiseptics, or covering with pine tar.

Extensive, deep or otherwise questionable wounds, or any wound on a valuable animal should be treated by a competent veterinarian. A wound may not be very extensive, and still be so located that it may render the animal almost worthless. Such a wound would not be worth treating unless the animal was used for breeding. Many wounds which occur on the limbs, and may not be very extensive, but involve tendon sheaths, etc., which are among the most serious wounds, but which if properly treated may leave the animal serviceable. They are characterized by the escaping of the lubricant which moistures the tendon sheath, which is of a viscid, glairy nature.

A very serious mistake which is frequently made by farmers and horse-



JIM SIDEY.

Yearling Shorthorn Bull sold at the Perth sale for \$2,625.

TREATMENT OF WIRE CUTS.

As long as horses are kept and barb wire used to fence their lots, so long will they be afflicted with wire cuts and the resulting blemishes.

However, a large part of the loss due to wire cuts could be averted if the proper attention and treatment were given the animals at the proper time. Wounds seldom receive the care they should have. If treated at all it is by a person having no knowledge of pathology or therapeutics. The treatment may begin with the application of a salve, powder, or some other mixture, all of which may act as an irritant to the wound, and tend to bring on excessive granulation or supuration. Wounds do not always indicate the same treatment, and if they receive the wrong treatment, the remedy simply acts as an irritant and the conditions grow worse. After the case has reached the stage of utter hopelessness perhaps a veterinarian will be called. The result is that a horse worth \$150 or \$200 is rendered unsound, or perhaps worthless, due to a trivial cause and improper treatment.

The first thing to do following a wire cut is to stop the hemorrhage. Tannin, subsulphate of iron, alum, and boric acid, are some of the best preparations to use for this purpose,

men in the treatment of wire cuts is that they have an ointment, liniment, or powder which they consider a "cure all," which may be contra-indicated, and when applied act as an irritant and hinder the healing process. An example of this mistake is the applying of a drying powder to suppurating wounds, or the application of various kinds of oily preparations, to form a harbor for germs.

There is a tendency in the animal economy to correct all injuries, and the repair will take place very rapidly if not interfered with by micro-organisms, or chemical or mechanical irritants. In wire cuts, all three of these factors may have to be combated. Often in the healing process the granulation tissue is in excess and not healthy, this should be removed by cauterization.

It is well to cleanse thoroughly any small wound with a good antiseptic for fear of the entrance of tetanus germs, especially valuable animals, which have wounds on parts which may be easily contaminated, and infected with tetanus organisms. It would be well to have the animal injected with a dose of tetanus antitoxin, to insure against the disease in case it was infected. After the tetanus develops it is generally fatal.

Iowa Agriculturalist.

MILBURN'S LAXA-LIVER PILLS

are mild, sure and safe, and are a perfect regulator of the system.

They gently unlock the secretions, clear away all effete and waste matter from the system, and give tone and vitality to the whole intestinal tract, curing Constipation, Sick Headache, Biliousness, Dyspepsia, Coated Tongue, Foul Breath, Jaundice, Heartburn, and Water Brash. Mrs. R. S. Ogden, Woodstock, N.B., writes: "My husband and myself have used Milburn's Laxa-Liver Pills for a number of years. We think we cannot do without them. They are the only pills we ever take."

Price 25 cents or five bottles for \$1.00, at all dealers or direct on receipt of price The T. Milburn Co., Limited, Toronto, Ont.

Ring-Bone

There is no case so old or bad that we will not guarantee

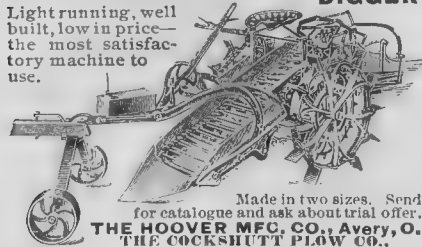
Fleming's Spavin and Ringbone Paste to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 45-minute applications cure. Works just as well on Sidebone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blemish, write for a free copy of

Fleming's Vest-Pocket Veterinary Adviser Ninety-six pages of veterinary information, with special attention to the treatment of blemishes. Durable bound, indexed and illustrated. Make a right beginning by sending for this book.

FLEMING BROS., Chemists,
45 Church Street, Toronto, Ont.

The HOOVER POTATO DICER

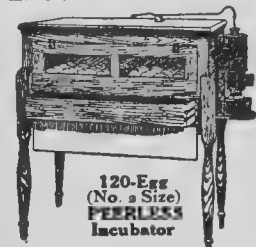
Light running, well built, low in price—the most satisfactory machine to use.



Made in two sizes. Send for catalogue and ask about trial offer.
THE HOOVER MFG. CO., Avery, O.
THE COCKSHUTT PLOW CO.,
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THIS IS THE NORTH-LAND.

In latitude 53 north, longitude 119 west, nature has cut through the very heart of the Rockies a gash 9,000 feet deep. This cut is known as the "Yellow Head." In this Pass, high up in perpetual snow, the Athabasca, the most southerly of the rivers that go to make up the Mackenzie Basin, the second largest watershed in North America, has its source. From its head it flows easterly and northerly, collecting in its course the waters of the Baptiste, Macleod, Freeman, Pembina, Lesser Slave, the Twatnu, Calling, LaBiche, Pelican, Buffalo, Clearwater and Red Deer. Where it empties itself into the Athabasca (or Lake of the Hills), it is one mile wide and eleven hundred miles from the trickling streams high up above the timber line of the Rockies, its source.

Out of Athabasca lake, the reservoir of "the Southern North," the Rock river takes its source. Forty miles on its way it is joined by that famed river of the north, the Peace an immense river formed by the junction of the Findlay and Parnip, in the very centre of northern British Columbia, 1,000 miles to the west. This splendid stream has drained that immense region served by the Half-way, the North and South Pine, Clear Sky, Cut Bank, and Bear and Montana, the two Burnts (the North and South), the Big Smoky, with its hundreds of tributaries, the White Mud, Cadott, the Battle, Carajou, the Keg and Paddle, the Owl and Elk rivers.

A tremendous volume of water, in conjunction with the Athabasca brought down by the Rock river, form the Great Slave river, three hundred miles in length, flowing into the Great Slave lake, an immense island sea in the centre of the north that washes the shores of the "Barren Land," so called because of the fact that although it has as good soil as the western prairies, it is barren of trees.

Then on, still further north, at the western end of the lake, the mighty Mackenzie has its starting point. This is one of the eight largest rivers in the known world. In its course to its mouth in the Arctic ocean in latitude 70, it is joined by the Liard river, that has flown from beyond the Rockies, collecting the waters of the North Cassiar and Caribou and southern Yukon countries.

Then on, by the forts of the Hudson's Bay company and Free Traders, Missions, and Indian camps that occur at intervals of hundreds of miles, joined on its way at a point about latitude 65 by the Great Bear river, that brings down the waters from the lake of the same name, is found one of the largest fresh water lakes in the world. This lake has on its easterly and southerly boundary the edge of the barren ground, with its bands of muskox, and millions of northern caribou, the land that is the source of the Copper Mine and the Great Fish rivers; the country of the roving Eskimos and the land of copper, the largest tract of unexplored land on this continent.

Then on, passing through a spur of the Rockies at the Ramparts, one of the beauty spots of the world, a day's drift or so further, and within two hours' saddle of the Arctic Circle, Fort Good Hope is reached, where the traveller can go ashore and get potatoes and vegetables. Further on the Gravel, the Arctic, Red and Peel rivers join their forces. At the junction of the Peel the river widens and is divided by numerous islands, two of which—in fact, either one of them—is as large as the province of Prince Edward Island. Its delta finally makes the Arctic shore in Mackenzie Bay, 2,400 miles from the basin source in Central Alberta, draining one million one hundred thousand more square miles than are drained by the Great Lakes and the St. Lawrence river.

This is the northland!

J. K. CORNWALL.
Lesser Slave Lake, Alta.

VIRDEN NURSERIES



200,000

Trees and cuttings, small fruits, shrubs, creepers, spruce, apples and crabs.

I have by far the largest stock in the West of these hardy, fast growing Russian poplars and willows; I send everything by express, prepaid, so as to arrive in good order. Trees may be returned at my expense if not satisfactory. No agents, no commissions, selling cheap. A postal card will bring you my price list and printed directions.

JOHN CALDWELL, Virden Nurseries
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Our Stock in all lines exceeds our limit of accommodation. We must reduce stock and will quote prices that will do it.

In Clydesdales we have two yearling stallions, one imported. Two year old and yearling fillies. A very fine lot of young shorthorn bulls and heifers by Missie's Prince (Imp.); Tam Glen at head of herd. Yorkshires, all ages; spring pigs at prices to suit.

Barred Rock eggs at \$1.50 per setting of 14. Roland and Carman stations, C. P. R., C. N. R. and G. N. R.

ANDREW GRAHAM
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The Shorthorn Herd of Poplar Park Farm

is now headed by Marquis of Marygold, the senior champion bull at Brandon, Regina and Calgary this season. Some good young bulls and heifers for sale.

W. H. English & Sons Harding, Man.

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50 head of January and February pigs for sale. Ready to ship end of March.

3 Prize winning Boars for sale, one a Berkshire yearling.

Address—**OLIVER KING**
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RED POLLED CATTLE YORKSHIRE HOGS

A splendid lot of Young Pigs for Sale



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MARE IMPREGNATORS

For getting in foal from 1 to 6 mares from one service of a stallion or jack, \$3.50 to \$6.00. Safety Impregnating Outfit, especially adapted for getting in foal so-called barren and irregular breeders, \$7.50. All goods prepaid and guaranteed. Write for Stallion Goods Catalog.

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SEEDS, TREES, PLANTS,

for the farm, garden, lawn, boulevard or conservatory. A climatized stock. Oldest established nursery on the Mainland. Catalogue free

M. J. HENRY

3010 Westminister Road, Vancouver, B.C.

Hackneys, Clydesdales

I can sell you some good young Alberta Bred Stallions of both breeds that will make you money and give satisfaction. Buy at first cost—come and see them.

WILL MOODIE, De Winton, Alta.

Clydesdales and Hackneys

fresh, sound, good.

The best money could buy in Scotland.

Prices Right. Easy Terms.

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Egerton, Kent, England, exports Pedigree Live Stock of every description to all parts of the world. Exported during 1907 more Shetland Ponies, more Romney Marsh Sheep and more champion Oxford Downs than any other breeder or exporter, besides large numbers of other breeds of horses, ponies, cattle, sheep and pigs. Correspondence invited. Highest references given.

SHORTHORNS

Ranchers and farmers need the reds, whites and roans, if you wish to breed the best and most profitable cattle. Can supply you with tip-top stuff. Am offering one three-year-old, six two-year-old and six yearling Shorthorn Bulls; also ten Cows and Heifers.

JOHN RAMSAY, Priddis, Alta.

Thomas Mercer, Markdale, Ont.

now offers for sale his recent Toronto winners—the 1st prize and Champion Shire horse, Newham's Duke (Imp.); also the 3rd and 7th prize in aged Clydesdale, in an entry of 27. The two latter horses are sired by the noted Hiawatha, dams Lady Gratley and May Rose. The weighty kind that will sire draught horses.

Correspondence solicited.

Yorkshires & Berkshires

We advise prospective purchasers to Buy Young Pigs. They can save on the price; save on the express charges (as crates can be made very light), and develop their pigs to suit themselves. We have five Stock Boars and over twenty-five sows, and will quote prices that mean business. Write for particulars or send your orders to **WALTER JAMES & SONS, Rosser, Man.**

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Size	Price dozen.	50 Tags.
Cattle	75c.	\$2.00
Light Cattle	60c.	\$1.50
Sheep or Hog	40c.	\$1.00

Cattle sizes with owner's name and address, and numbers; sheep or hog size with name and numbers. Sample and circular, mailed free. Get your neighbors to order with you and get lower price.

F. G. JAMES, Bowmanville, Ont.

Shorthorns 3 Young Bulls

20 one and two-yr. Heifers

Clydesdales 4 grand young studs

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The Farmer's Advocate of Winnipeg

GOLDEN WEST STOCK FARM

Clydesdales and Shorthorns



Stallions and mares of excellent breeding, of all ages, for sale.

Also some choice young bulls fit for service and a number of cows and heifers of noted Scotch strains.

Many of them Leading Prize Winners at the big Western Fairs.

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JOHN A. TURNER, BALGREGGAN STOCK FARM, CALGARY, P. O. Box 472. Phone 221A
Importer and Breeder of Clydesdales, Hackneys, Shorthorns, and Shropshire Sheep.

A new importation of 32 stallions and 6 females just arrived. Orders carefully filled and satisfaction guaranteed. At prices defying competition, as sales speak for themselves. 45 Stallions and 30 Mares and Fillies sold since January, 1907. Business conducted personally. Anyone wanting a show Stallion or a Filly can have a greater choice than in any other breeding establishment in Canada. Everyone welcome.

Rare Bargains in FAIRVIEW SHORTHORNS

I have more cattle than I have feed for, so am willing to sell a few, of both sexes, at prices I never expected to quote. The bulls are mostly young, or I can supply mature ones, the females are of different ages. All are cattle that a man only gets on bargain days. No trouble to quote prices or show the stock.

JOHN G. BARRON

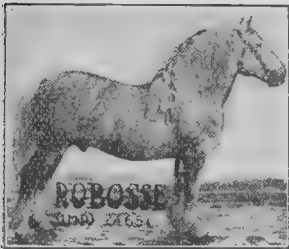
Fairview, C. N. R. Station.

Carberry P. O., & C. P. R. Station

FOR SALE—REGISTERED PERCHERONS Stallions, Mares, or Colts, all ages

Your choice of 40 bred from imported stock. One black Stallion, Charleroi, 6 years old, weight 2,050 lbs.; Mares weighing 1,500 lbs. to 1,700 lbs.; Yearlings and 2-year-olds of good quality. Correspondence solicited. Photos sent on application. Imported stallion, Robosse, at head of herd. Prices very low for this class of stock. Farm 3 miles from North Portal.

W. E. & R. C. UPPER, North Portal, Sask.



Maple View Stud Farm

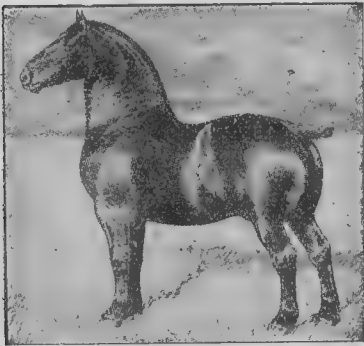
Percherons and Hackneys

Stallions and Mares of excellent breeding, all ages; imported and home-bred for sale. Also several choice young Canadian bred Clydesdale Stallions of best breeding at prices below competition. Correspondence solicited.

R. P. STANLEY

Moosomin, Sask.

Farm half mile from Station.



Brampton Jerseys Canada's Premier Herd

Strengthened regularly by importations from United States, England and the Island of Jersey.

We have animals of all ages and both sexes for sale, and the largest herd in Canada to choose from.

Write for prices and particulars.

Long-distance 'phone at farm.

B. H. BULL & SON, Brampton, Ont.

Hawthorn Bank Clydesdales, Hackneys and Shorthorns

I am nearly sold out of Clydesdales, have a few 3-year-old stallions and fillies left—good stuff. I have two show Hackneys still on hand, including the winner—Golden Garton. In Shorthorns I have still a nice lot of young bulls, mostly reds, and bred in the purple; also a few choice females. Write for quotations.

JOHN GRAHAM, Hawthorn Bank, Carberry

MAN.

Look through these columns

there are many new advertisements every week and it pays to use them either for buying or selling.

Nearly 30,000 families see these each week

The Dominion Fisheries Department recently brought some lobsters from the Atlantic and placed them in Cooper's Cove, Snook Harbor, B. C. The shipment was an experiment to determine whether these fish would thrive on the Pacific Coast. On the Atlantic Coast, the lobster fishing industry is one of the most valued. Last year the returns from Nova Scotia lobster fisheries exceeded \$2,000,000.

* * *

Mr. Neil Smith, Brampton, Ont., recently bought from Mr. James Picken, Torrs, Kirkcudbright, three powerful, well-ribbed, thick Clydesdale stallions, got respectively by the big, grand horse, Imperialist, the Cawdor-cup champion, Revelanta, and Mr. Kerr's great premium horse, Lothian Again (11804). These horses are out of mares of superior breeding, one being Lady Afton (16890) by the prize horse, Le Beau, and the second a grandly-bred mare, by Darnley Hero (5697). Mr. Smith has for several years past got solid big horse from Mr. Picken, which have proved highly profitable in Canada. These are likely to sustain the reputation so formed.

* * *

Moss Rose (6203), the most distinguished show-yard Clydesdale mare ever foaled, is dead. She was bred in 1881, by Mr. Geo. Ure, of Bonnybridge, Scotland, and only twice throughout an

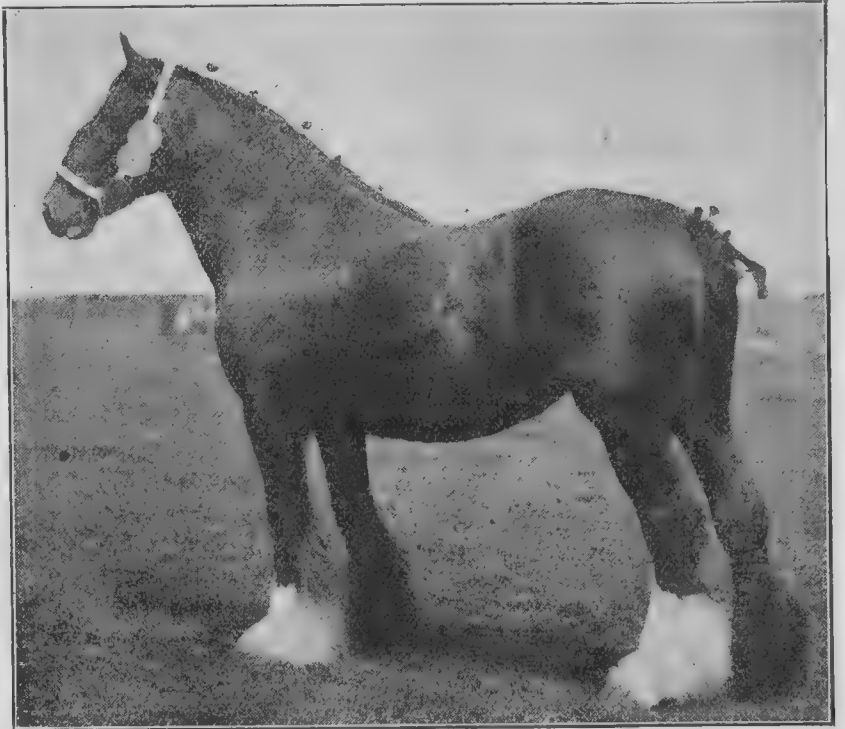
Eleven entries have been received for the 2.15 pace event of the Western Canada Turf association at Brandon on May 25. Two of these entries are from Boissevain—Mabel Hal, owned by R. G. Willis, reeve of Boissevain, who is well known among Winnipeg horsemen; and Grasshopper belonging to George Hopkins.

* * *

Mr. H. C. Graham, of Kitscoty, Alta., writes us as follows:

I have just received the catalogue of Calgary bull sale, in which I have listed three Shorthorn bulls. As the information given is necessarily meagre, it will not be amiss for me to add somewhat more. The bull Vice President is pure Scotch through his dam, Scottish Rose 3rd imported he gets the blood of the celebrated Jilt family considered as one of the most reliable and valuable Scotch strains, while on the side of his sire Scottish Hero also imported he receives the blood of the favorite Averno family by Scottish Champion (75598) used in Mr. Duthie's herd. Several of Vice President's Grandsires were bred by A. Cruickshank. Vice President won 1st prize in his class at Vegreville and Lloydminster shows in 1907.

Western Sailor and Lea Park Sailor are half-brothers, their dams also being mother and daughter, making them almost full brothers in blood. They



BARDON MARION.

Shire filly, foaled 1904. First and Champion Royal Show Derby 1907.
Sire Lockinge Forest King.

unexampled show-yard career was she placed anywhere but first, as a yearling and as a two-year-old, she was second at the Highland and Agricultural Show at Inverness.

She was purchased first by Mr. Andrew Montgomery of Netherhall, who sold her in the autumn of 1882 to Mr. Alex M'Cowan of Newtonairs, Dumfries. In his possession she remained for several years, and thereafter she became the property of Sir John Gilmour of Montrave, Bart. For him she secured trophies, innumerable, and bred quite a number of foals. Three of her female progeny were superior animals.—Montrave Rosebud (11348), Montrave Maud (11786), and Montrave Rosea alias Queen of the Roses (12302), the last the 1000 gs. filly at the Montrave sale of 1892. Two of these won the Cawdor Cup, and the old mare herself secured that honour at the Highland and Agricultural Society's Show at Aberdeen in 1894. She also produced several stallions, but these were not of special merit. Moss Rose was got by Dunmore Prince Charlie (634), and her dam Rosebud (1814) was a daughter of the celebrated Glasgow and Highland and Agricultural Society's winner Time o' Day (875). Her gr.-dam was that true Clydesdale Rose of Bute (89) bred at Mid-Ascog.

are also half-brothers of Belvedere Lily 9th, recently purchased by Sir Wm. Van Horne, for \$380.00. This heifer won 1st prize in her class at Toronto Industrial 1907. They are by Sailor Bruce 2nd, who is out of Mayflower 3rd Sweepstakes Shorthorn cow both in Toronto and Winnipeg. He is of a line of prize winners of the family of Miss Lyne and his Grand sire Royal Sailor (imported) is a sire of many prize winners, perhaps more than were got by any other imported bull. The dams of these bulls Bertha B, and Bertha D, are of a family of prize-winners both in the Dairy and Shorthorn classes. Were these bulls put in show condition they would be hard to beat in any company. They are in healthy breeding condition having lots of open air exercise, and they ran in the pasture all last summer and will receive no set back to go on a ranch or to head a herd of pure bred.

I am also showing in Calgary at the same time at the bull sale, a full sister of Belvedere Lily 9th. Western Lily, a heifer that promises to equal, if not surpass, her older sister.

Warranted to Give Satisfaction.

Gombault's Caustic Balsam



Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for Curb, Splint, Sweeney, Cappea Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

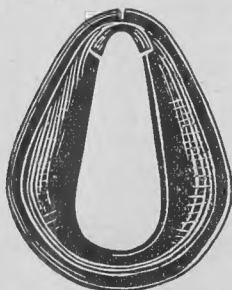
As a Human Remedy for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is Warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address

The Lawrence-Williams Co., Toronto, Ont.

SAVE YOUR HORSE

by using a

Rope Rimmed Collar



Mr. Farmer,—It's up to you to get acquainted with this collar, because its the easiest on the market for your horse. It's economical, because it does away with the expense of having sweat pads and buying Gall Cure for sore shoulders.

The regular price of this collar is \$5.

If your horse has bad or full round shoulders and you need a special collar, an extra charge of 50c. is made for making extra pattern.

Mr. Paul Bredt, the Regina Stockman, says: "I have much pleasure in recommending the 'Rope Rimmed' Horse Collar made by Mr. Stewart, of Regina, as the best collar I have ever used on horses inclining to sore shoulders. In fact I have never used a better collar on this continent, or on the European continent, for the cases mentioned above. It has given me thorough satisfaction even in the worst cases."

Order this collar at once, no matter where you live I can fit your horse.

J. N. STEWART

Harness Maker. Box 6, Regina, Sask.

Fistula and Poll Evil

Any person, however inexperienced, can readily cure either disease with

Fleming's

Fistula and Poll Evil Cure

—even bad old cases that skilled doctors have abandoned. Easy and simple; no cutting, just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in

Fleming's Vest-Pocket

Veterinary Adviser

Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durgibly bound, indexed and illustrated.

FLEMING BROS., Chemists
45 Church Street, Toronto, Ontario

A MODERN FARM HOUSE.

EDITOR FARMER'S ADVOCATE:

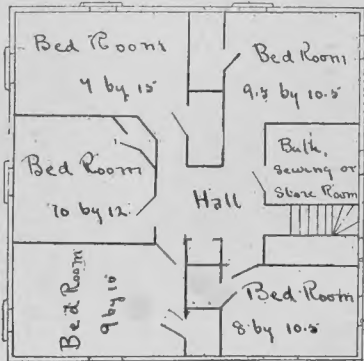
I am sending a plan for a farmhouse, which I think is very convenient. It is modern, and has small windows which give plenty of light with the minimum of exposure.

It is 30x30. You notice the kitchen is small, simply a work shop with every thing at hand, a good sink with grooved drain boards at each end, cupboard above, bins and drawers below, open



GROUND FLOOR.

under the sink, making plumbing open, boiler and the range enclosed, holding the heat better. A double swing door between kitchen and dining room is very convenient. A bedroom on the first floor seems a necessity for a farm house, and it has a good closet. I have partitioned one end of back porch for men's dining room, separator and wash-room. The back hall is a great convenience. The circular stair to cellar, gives room for a small coat closet, which everyone can appreciate in a hall. The back stairs open on the first landing of front stairs, but as it is a solid partition between that and the living room, one is screened from the room. The stair is open with bannister to second landing. The bathroom can speak for itself and quite "eloquently" to one who has had this convenience. The bath on second floor could be used for a sewing-room or made smaller and used as a hall closet, should two baths not be wanted. In the living



SECOND FLOOR.

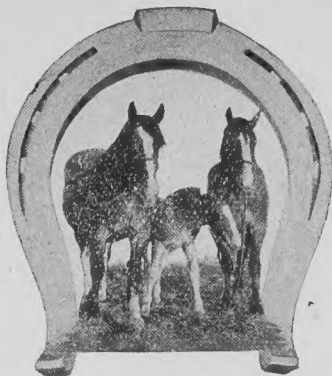
room the front windows should be built out, giving a wide stool for plants and flowers. Should a fire place be wanted it could be placed in center of this, the chimney is on the outside with small windows on either side. Windows are all placed about three feet from the floor. All closet and back room doors are 2 ft. wide, only. I would like to call attention also to the outside entrance to cellar under second landing of front stair.

Furnace is under center of the house. cellar is partitioned giving rooms for separate uses. It may or may not all be excavated. I believe farmers make a great mistake in thinking they cannot have bathroom conveniences, it costs very little to make a cesspool, and of course one would have a cistern, and with a tank in the attic a force pump could be worked by windmill or other power like the good hired man. A 200 barrel cistern is none too large for a house of this size. This plan does nicely in 28 x 30, but necessitates going through the bath room or dining room to get to the back hall.

MRS. J. HILDE SMITH.

Chaunber Farm,
Eli, Ma.

CRAIGIE MAINS The Home of High Quality Clydesdales



Our Stud is the largest selection Clydesdales in Western Canada. Horses with breeding, quality, style and action; some of them sired by Baron's Pride, "the greatest living Clydesdale sire"; the great proportion of them bred in the same strain. Other famous families are represented too. We have mares and stallions of all ages. Every horse in our barns is for inspection and sale. We can describe their breeding, the horses themselves will demonstrate their quality and value. If you want a stallion or mare have a look at what we are offering. The liverymen at either Pense or Lumsden will drive you to our farm free of charge.

A. & G. MUTCH. "CRAIGIE MAINS"
LUMSDEN, SASK.

IMPORTED SHIRES

From the Famous Breeding Farms of

JOHN CHAMBERS & SONS

Holdenby, Northampton, England

Sixty Head have been sold by me in Ontario alone during the past year. The quality of the stock may be judged from the fact that while we have nothing forced for exhibition purposes; these horses won in the Show rings at the Ontario Horse Breeders' Association, Toronto; the Western Fair, London; the St. Thomas Horse Show, and other places.

A Fresh Consignment of mares and fillies in foal and Stallions ready for service. Among them several handsome two-year-olds will be ready for inspection and sale at my barns, St. Thomas, Ont., about April 10th.

We Show the Goods and Sell at Reasonable Prices.

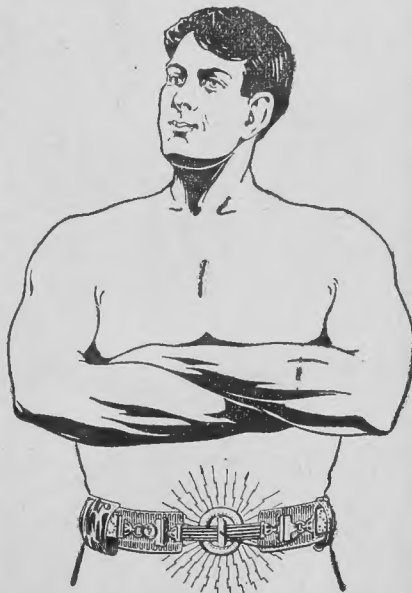
Our terms are reasonable. Correspondence solicited.



C. K. Geary, St. Thomas, Ont. Agent for Canada and the United States

STRENGTH FREE TO MEN

How to Regain it Without Cost until Cured



Strength of body—strength of mind. Who would not possess it if he could? It is nature's greatest gift—our most valuable possession. Without this strength life is a failure, with it everything is possible. Almost every man was made strong, but few have been taught how to preserve this strength. Many, through ignorance, have wasted it recklessly or used it up excessively, leaving the body exhausted, the nerves shaky, the eyes dull, and the mind slow to act. There are thousands of these weak, puny, broken-down men dragging on from day to day who might be as strong and vigorous as ever they were if they would only turn to the right source. Electricity cures these weaknesses. It gives you back the very element you have lost. It puts new life into the veins and renews the vigor of youth.

For 40 years I have been curing men, and so certain am I now of what my method will do that I will give to any man who needs it my world-famed DR. SANDEN ELECTRIC BELT AND SUSPENSORY FREE UNTIL CURED. You pay nothing down, you deposit nothing, you risk nothing; but upon request I will furnish you with the Belt to use, and if it cures, you pay me my price—in many cases not over \$5.00. If you are not cured or satisfied, return the Belt to me and that ends it.

As I am the originator of this method of treatment and have made it a great success, there are many imitations of my Belt; but my great knowledge, based on 40 years' experience, is mine alone. My advice is given free with the Belt.

This offer is made especially to men who lack strength and vitality, who have drains, losses, impotency, varicocele, etc., but I also give my Belt on the same terms to sufferers from Rheumatism, Lamé Back, Sciatica, Kidney, Liver and Stomach Troubles.

Call or write for a Belt to-day, or, if you want to, look into the matter further, I have two of the best books ever written on Electricity and its medical uses, which I send free, sealed, by mail.

DR. C. F. SANDEN

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AN INFLAMED TENDON NEEDS COOLING.

ABSORBINE

Will do it and restore the circulation, assist nature to repair strained, ruptured ligaments more successfully than Firing. No blister, no hair gone, and you can use the horse. \$2.00 per bottle, delivered. Book 2-C Free.

ABSORBINE, JR., for mankind, \$1.00 bottle. Cures Strained Torn Ligaments, Varicose Veins, Varicocele, Hydrocele, enlarged Glands and Ulcers. Allays pain quickly.

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LYMAN SONS & CO., Montreal, Canadian Agents.
Also furnished by Martin Bole & Wynne Co., Winnipeg
The National Drug & Chemical Co., Winnipeg and Calgary
and Henderson Bros. Co. Ltd., Vancouver.

Black Watch

Chewing Tobacco

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2269

The immigration department reports that the total immigration for the first three months of the present calendar year was 27,144 as compared with 42,048 for the same three months in 1907, showing a decrease of 14,904. The British immigration was 8,944 as compared with 20,822, a decrease of 11,878. The continental immigration was 6,810 as compared with 11,600, a decrease of 4,790. The immigration from the United States was 11,390 as compared with 9,626, an increase of 1,764.

The immigration for the last fiscal year ending with last month was 262,469, made up of 120,182 British, 63,975 continental and 58,312 from the United States. For the corresponding twelve months the immigration was 222,702, made up of 103,966 British, 59,473 continental and 59,263 from the United States. The increase for the twelve months was 39,767.

AGRICULTURE IN THE ARGENTINE.

Wheat, linseed, maize, and oats are the principal crops in the Argentine, the area in 1907 being apportioned as follows:—Wheat, 14,782,000 acres; Maize for last year is not scheduled, but it was something approximating wheat, but owing to the more exposed attacks from locusts it is not so popular as the other crops. The United Kingdom is the staple market for wheat and maize, Brazil for flour, and Germany for linseed. The system of agriculture is very unscientific. There is no rotation of crops and no manure or fertilizers are used. The plowing is very shallow, and is done with ordinary disc plows. It is no unusual thing to see half a dozen horses to a plow going over the fields at a trot. The soil is not worked more than is absolutely necessary to get the seed in, but reapers, binders, headers, and strippers are used. The straw, however, is not used when cut off. The grain is threshed in the field by threshers which travel from farm to farm and is burnt with the chaff. Lately there has been introduced a fair number of Canadian and Australian self-acting reapers and binders, but the grain is stored either in the field or at the nearest railway station, resting on boards and covered with tarpaulin. Regarding this part, however, we are pleased to state that elevators have been contracted for with English firms, and it is safe to say that in a very few years the whole republic will be provided with the latest appliances in the way of handling and storing the products of the yearly harvest, and this will go a long way in the direction of inspiring confidence in English buyers. Regularity of product is as essential in the raw material as in that of the finished product, and we hope that the "powers that be" will recognize that one fact.—The Miller.

EXTENDING THE WORLD'S WHEAT FIELDS.

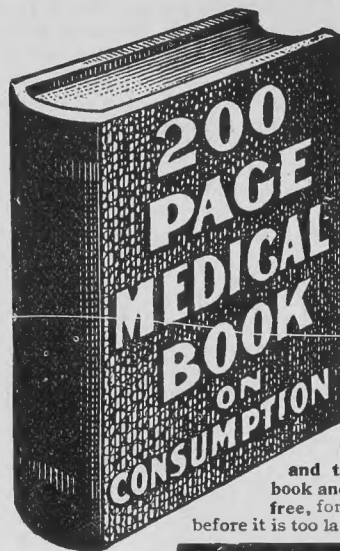
The Turks are undertaking some extensive irrigation works which when complete, will render possible the cultivation of three hundred square miles of fertile soil; will yield at the start somewhere in the neighborhood of 25,000,000 bushels of wheat per annum, and will finally add very materially to the supply of the world's first cereal. It is surprising the way in which the wheat fields of the world are extending. Sir William Crookes once

advanced the theory that by the year 1900 the population of the world would have become so large that sufficient wheat could not be produced to supply the people with bread, and that we were all to suffer from actual starvation so far as the actual supply of wheat was concerned. We have now passed through nearly ten years of the period Sir William prophesied we should be suffering for want of wheat, and in those ten years there has been added to its cultivation millions of acres in Australia, India, Argentina, Egypt and Canada, and all the predictions have been falsified. Where the phrasemakers made their great mistake was in not correctly gauging or understanding the vast territories as yet not opened up.

Whether it was that their geographical knowledge was deficient or that they did not understand the possibilities of irrigation, or both, we do not quite know, but the future of wheat growing by the aid of other means than those supplied by extracting nitrogen from the atmosphere is getting brighter every year. Of course, we have short crops now, and again, but the broad fact remains that for generations to come no fear of permanent famine need trouble our minds.

Consumption Book

FREE



This valuable medical book tells in plain, simple language how Consumption can be cured in your own home. If you know of anyone suffering from Consumption, Catarrh, Bronchitis, Asthma or any throat or lung trouble, or are yourself afflicted, this book will help you to a cure. Even if you are in the advanced stage of the disease and feel there is no hope, this book will show you how others have cured themselves after all remedies they had tried failed, and they believed their case was hopeless.

Write at once to the Yonkerman Consumption Remedy Co., 623 Rose Street, Kalamazoo, Mich., and they will send you from their Canadian Depot the book and a generous supply of the New Treatment, absolutely free, for they want every sufferer to have this wonderful cure before it is too late. Write today. It may mean the saving of your life.

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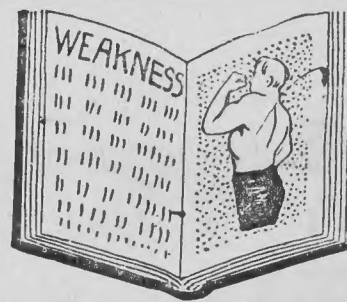
ZAM-BUK SAVED THIS MAN'S FINGER!

Mr. William C. Edwards, Peter Street, Toronto (late steward Elks' Club), sustained a severe cut on the middle finger of the left hand. Blood poisoning ensued and the finger caused him excruciating agony. He says: "My hand was so swollen and painful that I had to carry it in a sling for some months. I was under the care of a well-known doctor in Toronto for several weeks. The wound got no better, and one day he said my finger would have to be taken off. The pain from the wound was terrible and was extending right up the arm. I consulted another medical man and was treated by him for some weeks longer. He then suggested that the finger be opened and the bone scraped. At this stage a friend advised me to try some Zam-Buk which I did. I bathed the wound and applied Zam-Buk as directed. Next morning the wound began to bleed. It was a healthy sign so I continued with the treatment, and in a weeks time I was able to discard the bandage. A little more perseverance and Zam-Buk cured the wound completely."

Zam-Buk Cures cuts, burns, chafings, itch, eczema, running sores, ringworm, piles, bad legs, poisoned wounds and all skin diseases. All druggists and stores, etc., or postpaid from Zam-Buk Co., Toronto.



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To the man who wants to regain his youth, who wants to feel like he did when he was budding into manhood, I offer a book which will show him the road to happiness—a book of 80 pages, which is brimful of the things he likes to read, which will give him courage and enlighten him as to the cause and cure of his troubles. It will point out the pitfall and guide him safely to a future of strength and vitality. It is beautifully illustrated. It tells what other men have suffered and how they have cured themselves. It is free. I will send it, closely sealed, without marks, if you will mail me this coupon. If you are not the man you ought to be, SEND FOR IT TO-DAY.

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Builds up broken-down men, restores youth and vigor, and makes men look and feel strong. It will cure every case of Rheumatism, Nervous Debility, Weak Stomach, Kidney and Liver Troubles, Lamé Back, Sciatica, Varicocele, Loss of Power and every evidence of weakness in men and women. It will not fail; it cannot fail, as it infuses in the weakened parts the force of life and strength.

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Cut out this coupon and mail it to me to-day. I will send you my 80-page book, together with price list, prepaid, free. Don't wait a minute, cut out the coupon now.

DR. M. D. McLAUGHLIN

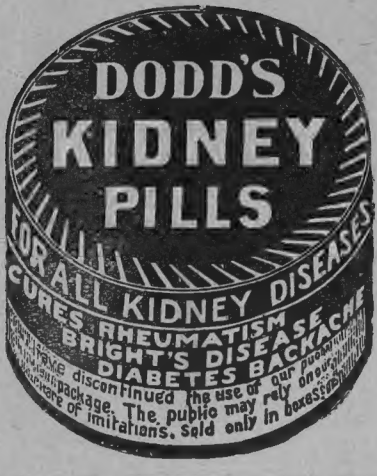
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OF INTEREST TO FLAX GROWERS.

The growing of flax in Western Canada seems likely to receive an extraordinary impetus, as the result of an invention perfected in the United States. By this invention the time required from sixteen weeks to ten hours and the large waste which is incidental to the methods which have been in use from time immemorial, have been absolutely eliminated. The time required for the production of linen fibre from flax under the old methods is actually from sixteen to thirty-two weeks. The result which can be secured under the new methods in ten hours are declared to be far more satisfactory. In addition to the immense saving in time, there is a corresponding saving of material. Under the methods usually employed for the treatment of flax, from one-third to one-half of the material of the plant is thrown aside as worthless. Under the method now introduced the entire substance is used, all that was formerly discarded a valueless being employed in the production of valuable by-products. It is claimed that the results of the invention will be as revolutionary as the invention of the cotton gin by Eli Whitney; and that the growing of flax in countries where it can be successfully produced will be multiplied many fold. The great difficulty in connection with the treatment of flax has been that no one has ever discovered a method by which both the seed and the straw could be utilized. In Europe the

straw is harvested before the seed matures, the straw alone being used. In America the straw is grown for the sake of the seed and is burned after the seed has been secured. The task of devising a mechanism which would handle the flax in such a manner that it would be possible to make use of both the seed and the straw was assumed many years ago by Benjamin C. Mudge, of Lynn, Mass. Mr. Mudge has now completed his work and the requisite mechanism has been installed in the factories of the Oxford Linen mills at Gardner, Mass. A brief description of the mechanism contrived by Mr. Mudge was given in a recent number of the Technical World.

According to the description, the seed is first removed from the straw, after which the latter is fed into a machine through a set of rollers. By the rollers the straw is broken and is then emptied into a revolving drum, where the woody portion is shaken away from the fibre. The fibre is transferred to a second drum, where the gums, fats, and the remaining woody portions are removed and the process completed. By this process the proportion of fibre secured from a thousand pounds of straw is increased from 170 pounds under the old method to 250 under the new. Under the old method the woody portion is thrown away. Under the new it is converted into a valuable linen paper. The old process had thirty per cent. of tow, while by the new process all of this is converted into valuable by-products.

Should the new mechanism even do a reasonable portion of what is expected of it, the result will be an immense increase in the demand for flax, such an increase as would interest every agriculturist in Western Canada.

HACKNEYS AT THE COAST.

The Hackney is coming into prominence in British Columbia. One of the features of the recent Vancouver Horse Show was from pairs of Hackney-bred carriage horses purchased at the Rawlinson sale, last June, and educated to harness since then. These pairs won many of the best prizes and were practically all sired by Robin Adair II.

Writing to us of the Vancouver Show, Mr. G. H. Hodwin of Duncan, B. C., says: "With our imported Hackney Stallion, Endurance 8132, we won first in the class of four years or over, beating

Diamond City winner at Toronto, last fall. Endurance also won the championship over all light breeds in which class there were thirty four entries, with "King Maker" a two-year-old bred by Rawlinsons, by commodore, and dam a full sister to Saxon we won second in the class. We showed our Hackney class, and won first, and also in the class for heavy harness mare or gelding, and won third. Lady Jubilee is a grand-daughter of Silby's champion mare, Miss Baker.

"I attended meeting at the Board of Victoria fair. They have just started to erect a new building 90x200 feet. The building is to have one-half circular space so that there will be a clear floor without a post. The other buildings (machinery hall, restaurant, poultry house and extra stabling for one hundred horses are being arranged for now and the prospects for the fall are, I think, very bright. The prize list for stock has been increased by about 40%. W. Smart makes a good live Secretary and seems to have everything well in hand."

HOUSE PLANS CRITICIZED.

EDITOR FARMER'S ADVOCATE:

In your issue of April 1st, plans for a house are given and criticism of the same invited. To my mind the dining room, in this house, should be used as a living room, and the dining room, made nine feet by twelve, arranged where the pantry is. This would give sufficient size for a table and chairs and a glass doored cupboard in the wall next the kitchen. I would also have a small door opening into another cupboard in the kitchen, my idea being to use the dining room only for eating in, and not as most dining rooms are, as sitting room, library, sewing room and everything else.

I would turn the bathroom and back hall into a kitchen, with the outside door leading onto a verandah, at the end of which a store-room could be made for holding meat in winter and washing utensils in summer. The bathroom can be upstairs, and by having a pump from the cistern and a small stove in the bathroom for heating the water, with a waste pipe leading down to carry the water away, it will be quite as convenient as it would be downstairs. I would have a men's wash-room off the kitchen, equipped with pump and sink; if there were no drain, a large pail could be used beneath the sink.

A pantry is not required. I would prefer a kitchen cabinet and a cupboard with doors and drawers. Where the cupboard is in the present plans, I would place a bookcase.

The upstairs arrangement could be improved by making the bedroom over the kitchen a little smaller and using it as the bathroom. This would give a larger stair landing and provide space for a sewing room. If five bedrooms are required the bathroom would have to be arranged off the landing, in which case the hall would have to run right through with a door or window at one end, to light the stairs.

I would suggest a lift between the cellar and the kitchen, so that on hot days, meats may be prepared in the cellar and sent up. Would also have a place made in the hall for hats with a small diamond or oval shaped window. curtain could be hung over such a place to exclude dust. I hope these suggestions will be well criticized.

Napinka, Man. J. C.

* * *

A correspondent of an English exchange reports that a ewe in his flock, on March 1st, gave birth to a strong healthy lamb, and on March 16th produced another. The first lamb is perfectly white, while the second has black head and legs. A Shropshire ram had been running with the flock, while the mother of the lambs was a small, horned ewe.

* * *

Mr. George Bruce, formerly tenant of Heatherwick, in Aberdeenshire, died recently in his 80th year. He was a contemporary and personal friend of the late Amos Cruikshank. The Heatherwick cattle were always popular, and it was only a year ago that Mr. Duthie at Perth, paid 1,000 guineas for Achilles, from the herd. Two or three years ago, Mr. Bruce retired from farming, and was succeeded by his son, Mr. Robert Bruce, who is promising to maintain to the full the traditions of the farm as a center of Shorthorn interest.



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Memorial Bells a Specialty.
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ELECTRICITY IS HEALTH

What Physicians Say:

"The word health now means a normal supply of electricity in the body, and the word disease means an insufficiency of that power."

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"Badly nourished girls and women—who simply need toning up—do well under electricity, which is an excellent tonic."

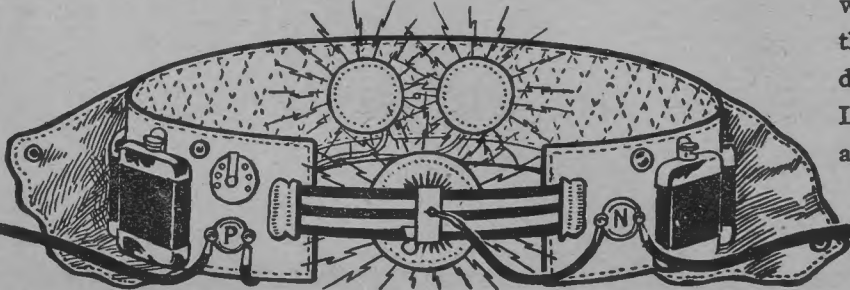
DR. BIGELOW.

SUPPOSE you take cold—or feel Rheumatism, Headache, Indigestion or a Nervous Attack coming on—or are suddenly afflicted with a pain or other illness! Instead of filling the system with poisonous drugs, put on

Dr. Lorenz's Electro Body Battery.

While you enjoy a refreshing night's sleep—this wonderful battery is pouring healthful, exhilarating, tonic electricity into every nerve, muscle and organ of your body. The instant you buckle the battery around your waist—new strength, new vitality, new life, enter the system. There would be no sickness if every home had one of these batteries and everyone used it at the first sign of poor health. Sold on easy payments if desired.

Our booklet describes the marvels of electricity and the wonders of this body battery which requires no vinegar or acids—no charging whatever—and can be regulated at will. Write for free copy today. "Victor" Electric Body Appliance Mfg. Company, 127 Victoria St., Toronto, Can.



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It Cures

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peculiar to men and
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the modern cure for
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Lorenz's Body Battery
and cure yourself.

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DON'T STOP to ask your neighbors. Lift the load yourself with THE BURR SELF-LOCKING TACKLE BLOCK.

Can be used in any position and lock securely. The heavier the load, the tighter it locks. Never destroys the rope in locking. For butchering, stretching wire fences, lifting wagon-boxes, sick or injured animals etc., it is indispensable to farmers. Saves labor of two or three men. 600 to 5000 pounds capacity. Ask dealers or write **Miller-Morse Hdw. Co., Winnipeg.**

FROM OUR NURSERY

(In Fall or Spring)
Cottonwoods, Maples, Elm, Ash, Apples, Plums, Cherries. Red Raspberries, Black Raspberries, Red Currants, White Currants, Black Currants Gooseberries, and all kinds of Flowering Shrubs. A full line of Nursery Stock always on hand.

FROM GREENHOUSES

(All the year round)
Plants of all kinds. Cut Flowers—the very latest. Orders for Wreaths and Bouquets promptly and skillfully executed.

AGENTS WANTED.

Send for our Catalogue, mailed you free.

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SYNOPSIS OF

CANADIAN NORTH-WEST

HOMESTEAD REGULATIONS

ANY even numbered section of Dominion Lands in Manitoba, Saskatchewan and Alberta, excepting 8 and 26, not reserved, may be homesteaded by any person who is the sole head of a family, or any male over 18 years of age, to the extent of one-quarter section of 160 acres, more or less.

Application for entry must be made in person by the applicant at a Dominion Lands Agency or Sub-agency for the district in which the land is situated. Entry by proxy may, however, be made at an Agency on certain conditions by the father, mother, son, daughter, brother or sister of an intending homesteader.

The homesteader is required to perform the homestead duties under one of the following plans:

- (1) At least six month's residence upon and cultivation of land in each year for three years.
- (2) A homesteader may, if he so desires, perform the required residence duties by living on farming land owned solely by him, not less than eighty (80) acres in extent, in the vicinity of the homestead, or upon a homestead entered for by him in the vicinity, such homesteader may perform his own residence duties by living with the father (or mother).
- (3) If the father (or mother if the father is deceased) of a homesteader has permanent residence on farming land owned solely by him, not less than eighty (80) acres in extent, in the vicinity of the homestead, or upon a homestead entered for by him in the vicinity, such homesteader may perform his own residence duties by living with the father (or mother).
- (4) The term "vicinity" in the two preceding paragraphs is defined as meaning not more than nine miles in a direct line, exclusive of the width of road allowances crossed in the measurements.
- (5) A homesteader intending to perform his residence duties in accordance with the above while living with parents or on farming and owned by himself must notify the Agent for the district of such intention.

Six months' notice in writing must be given to the Commissioner of Dominion Lands at Ottawa, of intention to apply for patent.

W. W. CORY.

Deputy of the Minister of the Interior

N. B.—Unauthorized publication of this advertisement will not be paid for.

Wasn't Your Neighbor Foolish?

Didn't he make a chump of himself? Wasn't it about the most senseless thing he ever did when he bought that "cheap" cream separator from a "mail order" concern that never manufactured a separator of any kind, and switches from year to year to the separator that can be bought the cheapest? Where is your neighbor going to get repairs? Why, he doesn't even know who built his separator, and the most important thing for a man to know when he buys a "cheap" separator is where to buy repairs every week.

There stands your neighbor's separator, down and out; broken; only used a few weeks; money wasted. Perhaps he could repair it if he knew where to get repairs, but he doesn't know. The fact is, there is no place to get them; his separator was one of a job lot sold "cheap" by a manufacturer who knew it was no good, and who unloaded his stock on a catalog house for what he could get. Now he's out of business.

The Tubular Cream Separator



"Different from the Others"

Easy to oil
Easy to turn
Easy to clean
Low supply can
No dirty oil cups
No bothersome discs

Simple, durable,
convenient, hand-
some and profit-
able.

Why didn't your neighbor do as you are going to do? Why didn't he buy a **Tubular Cream Separator**, built and guaranteed by the largest cream separator factory in the world and the oldest in America. For twenty-eight years we have been building cream separators at West Chester, Pa., and TUBULAR separators are used in every dairy district of the world.

Tubular Has No Rival

ZIMMERMAN, MINN.
Tubular shows no wear after three years and has never given me any trouble and from present appearances is good for a lifetime. One of my neighbors bought a — — about a month before I bought mine, and it went to the scrap pile months ago. For skimming the Tubular has no rival in my opinion. **JOHN M. COOK.**

We know how to build separators that will wear, and we are always where you can reach us when you want us. That's something you can tell your neighbor about TUBULARS. Maybe he would like to get right. Maybe he would like a little help. Probably he would like to have a TUBULAR if he could get a little something for his "cheap" separator. Maybe we can help him. Won't you suggest that he write for our new catalog No. 186? It tells all about it.

No Wonder They Are Pleased

Didn't Like Mail Order Separator

SOUTH SCHROON, N. Y.

The Tubular gives us perfect satisfaction. The longer we use it the better we like it. We bought one of the improved — — of Chicago, last spring, but we didn't like it a little bit. It was hard to run, hard to wash and hard to keep clean, while the Tubular is easy to run, easy to wash and easy to clean.

L. W. WHITNEY.

Discarded Mail Order Separator

ROBESONIA, PENNA.

After using a mail order cream separator for six months I decided to discard that machine and purchase a No. 4 Tubular Separator. The mail order separator would separate only 25 pounds of milk per hour, and did not give a thorough separation. I can skim two buckets of milk in 4 minutes. The mail order separator required ten minutes. I am more than pleased with the purchase I made from your people.

WM. F. BUCKS

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